cyclohexyl}-benzamide dihydrochloride.

To a solution of N-(cis-4-amino-cyclohexyl)-3,4-difluoro-benzamide obtained in step D of example 3031 (250 mg) in CHCl₃ (5 mL) were added quinoline-2-carbaldehyde (185 mg), acetic acid (71 mg), and NaBH(OAc)₃ (316 mg). The reaction mixture was stirred at ambient temperature for 16 hr. The reaction was quenched with saturated aqueous NaHCO₃ and the aqueous layer was extracted with CHCl₃ (three times). The combined organic layer was dried over MgSO₄, filtrated, concentrated under reduced pressure, and purified by medium-pressure liquid chromatography (NH-silica gel, 20% EtOAc in hexane and silica gel, 2% to 5% MeOH in CHCl₃) to give a colorless oil. To a solution of the above oil in EtOAc (10 mL) was added 4 M hydrogen chloride in EtOAc (0.2 mL). The mixture was stirred at ambient temperature for 1 hr and concentrated under reduced pressure. A suspension of the above material in Et₂O (12 mL) was stirred at ambient tempareture for 1 hr. The precipitate was collected by filtration, washed with Et₂O, and dried under reduced pressure to give 3,4-difluoro-N-{cis-4-[(quinolin-2-ylmethyl)-amino]-cyclohexyl}-benzamide dihydrochloride (100 mg) as a white solid.

15 ESI MS m/e 418, M (free) + Na⁺; 1 H NMR (300 MHz, DMSO-d₆) δ 1.50-1.68 (m, 2 H), 1.90-2.15 (m, 6 H), 3.20-3.37 (m, 1 H), 3.91-4.01 (m, 1 H), 4.53-4.66 (m, 2 H), 7.46-8.29 (m, 9 H), 8.52 (d, J = 8.5 Hz, 1 H), 9.44-9.62 (m, 2 H).

20 Example 3157

N-[cis-4-(4-Methyl-quinolin-2-ylamino)-cyclohexyl]-3,5-bis-trifluoromethyl-benzamide hydrochloride

Step A: Synthesis of N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-3,5-bis-

25 trifluoromethyl-benzamide hydrochloride.

Using the procedure for the step B of example 3070, the title compound was obtained. ESI MS m/e 496, M (free) + H^+ ; ¹H NMR (300 MHz, CDCl₃) δ 1.77-2.19 (m, 8 H), 2.74 (s, 3 H), 3.98-4.31 (m, 2 H), 6.78-6.81 (m, 1 H), 7.40-7.52 (m, 1 H), 7.58-7.78 (m, 3 H), 7.85 (d, J= 9.2 Hz.

701

1 H), 7.96-8.01 (m, 1 H), 8.36-8.41 (m, 2 H), 9.49-9.64 (m, 1 H).

Example 3158

5 N-[cis-4-(4-Methyl-quinolin-2-ylamino)-cyclohexyl]-3-trifluoromethoxybenzamide hydrochloride

Step A: Synthesis of N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-3-trifluoromethoxy-benzamide hydrochloride.

Using the procedure for the step B of example 3070, the title compound was obtained.

ESI MS m/e 444, M (free) + H⁺; ¹H NMR (300 MHz, CDCl₃) δ 1.68-2.20 (m, 8 H), 2.71-2.75 (m, 3 H), 3.96-4.30 (m, 2 H), 6.76-6.87 (m, 2 H), 7.30-7.39 (m, 1 H), 7.42-7.52 (m, 2 H), 7.67-7.89 (m, 5 H), 9.50-9.72 (m, 1 H).

15

Example 3159

 $\label{lem:condition} \emph{C-}(Ethyl-phenyl-amino)-\emph{N-}[\emph{cis-4-}(4-methyl-quinolin-2-ylamino)-cyclohexyl]-acetamide dihydrochloride$

20 Step A: Synthesis of C-(ethyl-phenyl-amino)-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-acetamide dihydrochloride.

Using the procedure for the step A of example 3071, the title compound was obtained.

ESI MS m/e 417, M (free) + H⁺; ¹H NMR (300 MHz, CDCl₃) 8 1.10-1.38 (m, 3 H), 1.59-2.05 (m, 8 H), 2.45-2.84 (m, 3 H), 3.35-4.15 (m, 6 H), 6.57-6.81 (m, 1 H), 6.85-7.52 (m, 7 H), 7.57-7.89 (m, 4 L), 9.20-9.50 (m, 1 H).

3-Hydroxy-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide hydrochloride

Step A: Synthesis of 3-hydroxy-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide hydrochloride.

Using the procedure for the step A of example 3071, the title compound was obtained.

ESI MS m/e 398, M (free) + Na⁺; ¹H NMR (300 MHz, DMSO-d₆) δ 1.67-2.02 (m, 8 H), 2.53-2.70 (m, 3 H), 3.86-3.99 (m, 1 H), 4.24-4.40 (m, 1 H), 6.88-6.96 (m, 1 H), 7.06-7.31 (m, 4 H), 7.46-7.57 (m, 1 H), 7.73-7.83 (m, 1 H), 7.92-8.28 (m, 3 H), 9.66 (s, 1 H), 12.83-12.94 (m, 1 H).

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Example 3161

2-Amino-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide dihydrochloride

Step A: Synthesis of 2-amino-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]
15 nicotinamide dihydrochloride.

Using the procedure for the step A of example 3071, the title compound was obtained.

ESI MS m/e 376, M (free) + H⁺; ¹H NMR (300 MHz, DMSO-d₆) δ 1.63-2.06 (m, 8 H), 2.53-2.70 (m, 3 H), 3.87-4.04 (m, 1 H), 4.36-4.59 (m, 1 H), 6.92-7.06 (m, 1 H), 7.15-7.27 (m, 1 H), 7.45-7.58 (m, 1 H), 7.69-7.84 (m, 1 H), 7.89-8.01 (m, 1 H), 8.14-8.58 (m, 4 H), 8.69-8.86 (m, 1 H), 9.54-9.72 (m, 20 1 H).

Example 3162

2,3-Difluoro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide hydrochloride

25

Step A: Synthesis of 2,3-difluoro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide hydrochloride.

Using the procedure for the step B of example 3070, the title compound was obtained.

703

ESI MS m/e 418, M (free) + Na $^+$; ¹H NMR (300 MHz, CDCl₃) δ 1.56-2.17 (m, 8 H), 2.72 (s, 3 H), 3.88-4.04 (m, 1 H), 4.09-4.30 (m, 1 H), 6.67-6.92 (m, 2 H), 7.10-7.35 (m, 2 H), 7.41-7.52 (m, 1 H), 7.60-7.93 (m, 4 H), 9.53-9.75 (m, 1 H).

5

Example 3163

2,4-Difluoro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide hydrochloride

Step A: Synthesis of 2,4-difluoro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-

10 cyclohexyl]-benzamide hydrochloride.

Using the procedure for the step B of example 3070, the title compound was obtained. ESI MS m/e 418, M (free) + Na $^+$; ¹H NMR (300 MHz, CDCl₃) δ 1.57-2.22 (m, 8 H), 2.73 (s, 3 H), 3.87-4.06 (m, 1 H), 4.11-4.31 (m, 1 H), 6.69-7.06 (m, 4 H), 7.40-7.56 (m, 1 H), 7.65-7.88 (m, 3 H), 7.98-8.14 (m, 1 H), 9.51-9.83 (m, 1 H).

15

Example 3164

2,5-Difluoro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide hydrochloride

20 Step A: Synthesis of 2,5-difluoro-*N*-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide hydrochloride.

Using the procedure for the step B of example 3070, the title compound was obtained.

ESI MS m/e 418, M (free) + Na⁺; ¹H NMR (300 MHz, CDCl₃) 8 1.46-2.14 (m, 8 H), 2.72 (s, 3 H),

3.84-4.04 (m, 1 H), 4.09-4.32 (m, 1 H), 6.77 (s, 1 H), 6.82-7.21 (m, 3 H), 7.37-7.54 (m, 1 H),

25 7.63-7.89 (m, 4 H), 9.54-9.72 (m, 1 H).

WO 2004/087669

PCT/JP2004/004624

704

2,6-Difluoro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide hydrochloride

Step A: Synthesis of 2,6-difluoro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide hydrochloride.

Using the procedure for the step B of example 3070, the title compound was obtained. ESI MS m/e 418, M (free) + Na⁺; 1 H NMR (300 MHz, CDCl₃) δ 1.72-2.08 (m, 8 H), 2.72 (s, 3 H), 3.91-4.03 (m, 1 H), 4.13-4.33 (m, 1 H), 6.42-6.54 (m, 1 H), 6.77 (s, 1 H), 6.88-6.99 (m, 2 H), 7.27-7.50 (m, 2 H), 7.66-7.78 (m, 2 H), 7.84 (d, J= 8.2 Hz, 1 H), 9.53-9.70 (m, 1 H).

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Example 3166

3,5-Difluoro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide hydrochloride

Step A: Synthesis of 3,5-difluoro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-

15 cyclohexyl]-benzamide hydrochloride.

Using the procedure for the step B of example 3070, the title compound was obtained. ESI MS m/e 418, M (free) + Na⁺; 1 H NMR (300 MHz, CDCl₃) δ 1.78-2.16 (m, 8 H), 2.72 (s, 3 H), 3.96-4.26 (m, 2 H), 6.78 (s, 1 H), 6.86-7.02 (m, 2 H), 7.33-7.52 (m, 3 H), 7.67-7.78 (m, 2 H), 7.85 (d, J= 8.2 Hz, 1 H), 9.48-9.71 (m, 1 H).

20

Example 3167

 $\label{lem:condition} $$C-\{(4-Chloro-phenyl)-ethyl-amino\}-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-acetamide dihydrochloride$

25

Step A: Synthesis of C-[(4-chloro-phenyl)-ethyl-amino]-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-acetamide dihydrochloride.

Using the procedure for the step A of example 3071, the title compound was obtained.

705

ESI MS m/e 451, M (free) + H⁺; ¹H NMR (300 MHz, CDCl₃) δ 1.14-1.26 (m, 3 H), 1.69-2.00 (m, 8 H), 2.60 (s, 3 H), 3.39-3.61 (m, 2 H), 3.75-4.03 (m, 4 H), 6.63-7.06 (m, 4 H), 7.14-7.32 (m, 2 H), 7.39-7.51 (m, 1 H), 7.64-7.89 (m, 3 H), 9.44-9.59 (m, 1 H).

5

Example 3168

 $\label{lem:condition} \mbox{4-Chloro-3-fluoro-$N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-} \\ \mbox{benzamide hydrochloride}$

10 Step A: Synthesis of 4-chloro-3-fluoro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide hydrochloride.

Using the procedure for the step A of example 3071, the title compound was obtained.

ESI MS m/e 412, M (free) + H⁺; ¹H NMR (300 MHz, CDCl₃) δ 1.78-2.13 (m, 8 H), 2.70-2.76 (m, 3 H), 3.95-4.28 (m, 2 H), 6.65-6.81 (m, 2 H), 7.41-7.50 (m, 2 H), 7.53-7.59 (m, 1 H), 7.65-7.77 (m, 3 H), 7.82-7.88 (m, 1 H), 9.57-9.71 (m, 1 H).

Example 3169

4-Fluoro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide hydrochloride

20

Step A: Synthesis of 4-fluoro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide hydrochloride.

Using the procedure for the step B of example 3070, the title compound was obtained. ESI MS m/e 378, M (free) + H⁺; 1 H NMR (300 MHz, CDCl₃) δ 1.81-2.10 (m, 8 H), 2.72 (s, 3 H), 3.95-4.29 (m, 2 H), 6.65-6.81 (m, 2 H), 7.10 (t, J= 8.6 Hz, 2 H), 7.42-7.51 (m, 1 H), 7.67-7.91 (m, 5 H), 9.55-9.67 (m, 1 H).

706

Example 3170

3-Fluoro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide hydrochloride

Step A: Synthesis of 3-Fluoro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-

5 benzamide hydrochloride.

Using the procedure for the step B of example 3070, the title compound was obtained. ESI MS m/e 378, M (free) + H^+ ; 1H NMR (300 MHz, CDCl₃) δ 1.77-2.09 (m, 8 H), 2.71-2.76 (m, 3 H), 3.94-4.25 (m, 2 H), 6.54-6.65 (m, 1 H), 6.76-6.81 (m, 1 H), 7.13-7.23 (m, 1 H), 7.35-7.61 (m, 4 H), 7.67-7.88 (m, 3 H), 9.58-9.73 (m, 1 H).

10

Example 3171

2-Fluoro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide hydrochloride

15 Step A: Synthesis of 2-Fluoro-N-{cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide hydrochloride.

Using the procedure for the step B of example 3070, the title compound was obtained. ESI MS m/e 378, M (free) + H⁺; ¹H NMR (300 MHz, CDCl₃) & 1.84-2.15 (m, 8 H), 2.72 (s, 3 H), 3.87-4.01 (m, 1 H), 4.13-4.29 (m, 1 H), 6.73-6.89 (m, 2 H), 7.07-7.28 (m, 2 H), 7.40-7.51 (m, 2 H), 7.66-7.87 (m, 3 H), 7.96-8.05 (m, 1 H), 9.62-9.72 (m, 1 H).

Example 3172

 $\textbf{4-Chloro-} N-[\textit{cis-4-} (\textbf{4-methyl-quinolin-2-ylamino})- \textbf{cyclohexyl}]- benzamide \ hydrochloride$

25

Step A: Synthesis of 4-chloro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide hydrochloride.

Using the procedure for the step B of example 3070, the title compound was obtained.

WO 2004/087669

707

ESI MS m/e 394, M (free) + H⁺; ¹H NMR (300 MHz, DMSO-d₆) δ 1.64-2.04 (m, 8 H), 2.55-2.70 (m, 3 H), 3.87-4.04 (m, 1 H), 4.27-4.52 (m, 1 H), 7.07-7.18 (m, 1 H), 7.46-7.58 (m, 3 H), 7.73-8.02 (m, 4 H), 8.23-8.38 (m, 2 H), 9.39-9.52 (m, 1 H), 12.96-13.10 (m, 1 H).

5

Example 3173

 $\hbox{2-Hydroxy-} N\hbox{-}[{\it cis}\hbox{-}4\hbox{-}(4\hbox{-}{\it methyl-quinolin-2-ylamino})\hbox{-}{\it cyclohexyl}]\hbox{-}{\it nicotinamide\ hydrochloride\ }$

Step A: Synthesis of 2-Hydroxy-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]10 nicotinamide hydrochloride.

Using the procedure for the step A of example 3071, the title compound was obtained. ESI MS m/e 399, M (free) + Na⁺; ¹H NMR (300 MHz, DMSO-d₆) δ 1.46-1.99 (m, 8 H), 2.53-2.72 (m, 3 H), 4.02-4.15 (m, 1 H), 4.20-4.45 (m, 1 H), 6.46-6.56 (m, 1 H), 6.95-7.08 (m, 1 H), 7.45-7.57 (m, 1 H), 7.69-7.83 (m, 2 H), 7.90-8.47 (m, 3 H), 10.08-10.27 (m, 1 H), 12.48-12.63 (m, 1 H).

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Example 3174

N-[cis-4-(4-Methyl-quinolin-2-ylamino)-cyclohexyl]-isophthalamic acid-methyl ester hydrochloride

20

Step A: Synthesis of N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-isophthalamic acid methyl ester hydrochloride.

Using the procedure for the step A of example 3071, the title compound was obtained. ESI MS m/e 440, M (free) + Na⁺; 1 H NMR (300 MHz, CDCl₃) δ 1.78-2.21 (m, 8 H), 2.73 (d, J= 1.1 Hz, 3 H), 3.92-4.07 (m, 4 H), 4.13-4.29 (m, 1 H), 6.78 (s, 1 H), 6.99-7.10 (m, 1 H), 7.40-7.57 (m, 2 H), 7.67-7.79 (m, 2 H), 7.82-7.89 (m, 1 H), 8.02-8.19 (m, 2 H), 8.46-8.52 (m, 1 H), 9.46-9.65 (m, 1 H).

708

Example 3175

6-Chloro-IV-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide hydrochloride

5 Step A: Synthesis of 6-chloro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide hydrochloride.

Using the procedure for the step A of example 3071, the title compound was obtained.

ESI MS m/e 417, M (free) + Na⁺; ¹H NMR (300 MHz, DMSO-d₆) δ 1.67-2.03 (m, 8 H), 2.54-2.72 (m, 3 H), 3.91-4.06 (m, 1 H), 4.26-4.42 (m, 1 H), 7.05-7.18 (m, 1 H), 7.45-7.57 (m, 1 H), 7.63-7.69 (m, 1 H), 7.73-7.83 (m, 1 H), 7.91-8.04 (m, 1 H), 8.17-8.31 (m, 2 H), 8.51-8.62 (m, 1 H), 8.83-8.89 (m, 1 H), 9.33-9.51 (m, 1 H), 12.86-13.03 (m, 1 H).

Example 3176

15 6-Dimethylamino-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide dihydrochloride

Step A: Synthesis of 6-dimethylamino-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide dihydrochloride.

To a solution of 6-chloro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]nicotinamide obtained in step A of example 3175 (250 mg) in IPA (1 mL) were added 50% aqueous Me₂NH (63 mg) and iPr₂NEt (172 mg). The mixture was stirred at reflux for 5 hr, added 50% aqueous Me₂NH (120 mg), and stirred at reflux for 5 hr. The reaction was quenched with saturated aqueous NaHCO₃ and the aqueous layer was extracted with CHCl₃ (three times). The combined organic layer was dried over MgSO₄, filtrated, concentrated under reduced pressure, and purified by medium-pressure liquid chromatography (NH-silica gel, EtOAc). To a solution of the above material in EtOH (3 mL) was added 4 M hydrogen chloride in EtOAc (0.47 mL). The mixture was stirred at ambient temperature for 1 hr and

709

concentrated under reduced pressure. A suspension of the above material in Et₂O (3 mL) was stirred at ambient tempareture for 4 hr. The precipitate was collected by filtration, washed with Et₂O, and dried under reduced pressure to give 6-dimethylamino-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide dihydrochloride (200 mg) as a 5 white solid.

ESI MS m/e 426, M (free) + Na⁺; ¹H NMR (300 MHz, CDCl₃) δ 1.73-2.13 (m, 8 H), 2.63-2.80 (m, 3 H), 3.34-3.61 (m, 6 H), 3.91-4.28 (m, 2 H), 6.70-7.07 (m, 2 H), 7.35-8.10 (m, 5 H), 8.29-8.46 (m, 1 H), 8.82-8.98 (m, 1 H), 9.36-9.51 (m, 1 H).

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Example 3177

3-Hydroxymethyl-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide hydrochloride

15 Step A: Synthesis of 3-hydroxymethyl-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide hydrochloride.

To a suspension of LiAlH (18 mg) in Et₂O (5 mL) was added *N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-isophthalamic acid methyl ester obtained in step A of example 3174 (200 mg) in Et₂O (2 mL). The mixture was stirred at ambient temperature for 3 hr. The reaction was quenched with water and the aqueous layer was extracted with CHCl₃ (three times). The combined organic layer was dried over MgSO₄, filtrated, concentrated under reduced pressure and purified by medium-pressure liquid chromatography (silica gel, 3% to 10% MeOH in CHCl₃). To a solution of the above material in EtOH (2 mL) was added 4 M hydrogen chloride in EtOAc (0.24 mL). The mixture was stirred at ambient temperature for 2 hr and concentrated under reduced pressure. A suspension of the above material in Et₂O (3 mL) was stirred at ambient temperature for 1 hr. The precipitate was collected by filtration, washed with Et₂O, and dried at 70 °C under reduced pressure to give 3-hydroxymethyl-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide hydrochloride (93 mg) as a white solid.

ESI MS m/e 390, M (free) + H⁺; ¹H NMR (300 MHz, DMSO-d₆) δ 1.66-2.02 (m, 8 H), 2.61 (s, 3 H), 3.87 (brs, 1 H), 4.22-4.42 (m, 1 H), 4.55 (s, 2 H), 7.03-7.17 (m, 1 H), 7.35-7.59 (m, 3 H), 7.67-7.87 (m, 3 H), 7.91-8.04 (m, 1 H), 8.11-8.31 (m, 2 H), 12.75-12.96 (m, 1 H).

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Example 3178

N-[cis-4-(4-Methyl-quinolin-2-ylamino)-cyclohexyl]-isophthalamide hydrochloride

Step A: Synthesis of N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-isophthalamic acid methyl ester.

To a solution of isophthalic acid monomethyl ester (400 mg) and N-(cis-4-methyl-quinolin-2-yl)-cyclohexane-1,4-diamine in step A of example 3070 (400 mg) in DMF (4 mL) were added Et₃N (0.52 mL), HOBt-H₂O (358 mg), and EDC-HCl (330 mg). The reaction mixture was stirred at ambient temperature for 12 hr. To the reaction mixture was added water (20 mL) and the suspension was stirred at ambient temperature for 30 min. The precipitated was collected by filtration, washed with H₂O, and purified by medium-pressure liquid chromatography (silica gel, 9% MeOH in CHCl₃) to give N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-isophthalamic acid methyl ester (740 mg) as a white solid.

ESI MS m/e 440, M + Na⁺; ¹H NMR (200 MHz, CDCl₃) δ 1.59-2.09 (m, 8 H), 2.58 (s, 3 H), 3.96 (s, 20 3 H), 4.02-4.29 (m, 2 H), 4.72-4.87 (m, 1 H), 6.12-6.27 (m, 1 H), 6.48-6.59 (m, 1 H), 7.17-7.30 (m, 1 H), 7.45-7.82 (m, 4 H), 8.00-8.22 (m, 2 H), 8.32-8.39 (m, 1 H).

Step B: Synthesis of N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-isophthalamide hydrochloride.

To a solution of N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]isophthalamic acid methyl ester (150 mg) in EtOH (4.5 mL) was added 2 M aqueous NaOH
(0.27 mL). The reaction mixture was stirred at ambient temperature for 13 hr. To the reaction mixture was added 1 M aqueous HCl (0.3 mL) and the aqueous layer was extracted with CHCl₃ (three times).

The combined organic layer was dried over MgSO₄, filtered, concentrated under reduced pressure, purified by medium-pressure liquid chromatography (silica gel, 1% to 5% MeOH in CHCl₃) to give a white solid. To a solution of the above solid in DMF (2 mL) was added 28% aqueous NH₃ (21 mg), Et₃N (0.1 mL), HOBt-H₂O (67 mg), and EDC-HCl (67 mg). The reaction mixture was stirred at 5 ambient temperature for 12 hr. To the reaction mixture was added water (20 mL) and the aqueous layer was extracted with CHCl₃ (three times). The combined organic layer was dried over MgSO₄, filtered, concentrated under reduced pressure, purified by medium-pressure liquid chromatography (NH-silica gel, 3% to 9% MeOH in CHCl₃). The solution of above material in EtOAc (10 mL) was added 4 M hydrogen chloride in EtOAc (0.2 mL). The mixture was stirred at ambient temperature for 10 1 hr and concentrated under reduced pressure. A suspension of the above material in Et₂O (12 mL) was stirred at ambient tempareture for 2 hr. The precipitate was collected by filtration, washed with Et₂O, and under reduced pressure to give N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]isophthalamide hydrochloride ESI MS m/e 403, M (free) + H^{+} ; ¹H NMR (300 MHz, DMSO-d₆) δ 1.69-2.04 (m, 8 H), 2.56-2.63 (m, 15 3 H), 3.92-4.06 (m, 1 H), 4.28-4.48 (m, 1 H), 7.06-7.17 (m, 1 H), 7.41-7.58 (m, 3 H), 7.70-8.04 (m, 3 H), 8.06-8.43 (m, 3 H), 9.35-9.54 (m, 1 H), 12.87-13.07 (m, 1 H).

Example 3179

20 3-Chloro-5-fluoro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide hydrochloride

Step A: Synthesis of 3-chloro-5-fluoro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide hydrochloride.

Using the procedure for the step A of example 3071, the title compound was obtained. ESI MS m/e 412, M (free) + H⁺; 1 H NMR (300 MHz, CDCl₃) δ 1.79-2.12 (m, 8 H), 2.73 (d, J = 0.9 Hz, 3 H), 3.96-4.22 (m, 2 H), 6.75-6.90 (m, 2 H), 7.17-7.25 (m, 1 H), 7.42-7.51 (m, 2 H), 7.59-7.89 (m, 4 H), 9.51-9.72 (m, 1 H).

Example 3180

3,4,5-Trifluoro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide hydrochloride

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Step A: Synthesis of 3,4,5-trifluoro-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide hydrochloride.

Using the procedure for the step A of example 3071, the title compound was obtained. ESI MS m/e 414, M (free) + H⁺; 1 H NMR (300 MHz, CDCl₃) δ 1.76-2.16 (m, 8 H), 2.73 (d, J = 1.1 Hz, 3 H), 3.97-4.24 (m, 2 H), 6.78 (s, 1 H), 6.92-7.04 (m, 1 H), 7.41-7.60 (m, 3 H), 7.68-7.77 (m, 2 H), 7.82-7.89 (m, 1 H), 9.50-9.64 (m, 1 H).

Example 3181

15 Pyridine-2-carboxylic acid [cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-amide hydrochloride

Step A: Synthesis of pyridine-2-carboxylic acid [cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-amide hydrochloride.

Using the procedure for the step A of example 3071, the title compound was obtained.

ESI MS m/e 383, M (free) + Na⁺; ¹H NMR (300 MHz, DMSO-d₆) δ 1.63-2.07 (m, 8 H), 2.54-2.71 (m, 3 H), 4.00-4.13 (m, 1 H), 4.49-4.62 (m, 1 H), 7.10-7.20 (m, 1 H), 7.46-7.56 (m, 1 H), 7.61-8.12 (m, 5 H), 8.33-8.42 (m, 2 H), 8.65-8.72 (m, 1 H), 9.46-9.60 (m, 1 H), 13.23-13.38 (m, 1 H).

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Example 3182

N-[cis-4-(4-Methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide hydrochloride

713

Step A: Synthesis of N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide hydrochloride.

Using the procedure for the step A of example 3071, the title compound was obtained.

ESI MS m/e 383, M (free) + Na⁺; ¹H NMR (300 MHz, DMSO-d₆) δ 1.76-2.05 (m, 8 H), 2.54-2.73 (m, 5 H), 3.93-4.07 (m, 1 H), 4.29-4.48 (m, 1 H), 7.10-7.19 (m, 1 H), 7.47-7.57 (m, 1 H), 7.72-7.85 (m, 2 H), 7.92-8.04 (m, 1 H), 8.21-8.33 (m, 1 H), 8.48-8.57 (m, 1 H), 8.65-8.73 (m, 1 H), 8.82-8.89 (m, 1 H), 9.14-9.20 (m, 1 H), 9.42-9.58 (m, 1 H), 12.93-13.08 (m, 1 H).

10 Example 3183

N-[cis-4-(4-Methyl-quinolin-2-ylamino)-cyclohexyl]-isonicotinamide hydrochloride

Step A: Synthesis of N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-isonicotinamide hydrochloride.

Using the procedure for the step A of example 3071, the title compound was obtained.

ESI MS m/e 383, M (free) + Na⁺; ¹H NMR (300 MHz, DMSO-d₆) δ 1.68-2.08 (m, 8 H), 2.53-2.71 (m, 3 H), 3.92-4.08 (m, 1 H), 4.33-4.54 (m, 1 H), 7.11-7.22 (m, 1 H), 7.43-7.60 (m, 1 H), 7.69-7.86 (m, 1 H), 7.89-8.41 (m, 4 H), 8.81-9.07 (m, 3 H), 9.48-9.67 (m, 1 H), 13.03-13.24 (m, 1 H).

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Example 3184

4-Chloro-pyridine-2-carboxylic acid [cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-amide hydrochloride

25 Step A: Synthesis of 4-Chloro-pyridine-2-carboxylic acid [cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-amide hydrochloride.

Using the procedure for the step A of example 3071, the title compound was obtained.

ESI MS m/e 417, M (free) + Na⁺; ¹H NMR (300 MHz, DMSO-d₆) 8 1.62-2.05 (m, 8 H), 2.53-2.72 (m,

714

3 H), 3.99-4.51 (m, 2 H), 7.04-7.15 (m, 1 H), 7.46-7.57 (m, 1 H), 7.72-7.85 (m, 2 H), 7.92-8.10 (m, 2 H), 8.16-8.29 (m, 1 H), 8.39 (d, J = 8.1 Hz, 1 H), 8.66 (d, J = 5.3 Hz, 1 H), 9.32-9.51 (m, 1 H), 12.93-13.08 (m, 1 H).

5

Example 3185

5-Bromo-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide~dihydrochloride

Step A: Synthesis of 5-bromo-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]10 nicotinamide dihydrochloride.

Using the procedure for the step A of example 3071, the title compound was obtained.

ESI MS m/e 439, M (free) + H⁺; ¹H NMR (300 MHz, DMSO-d₆) δ 1.71-2.02 (m, 8 H), 2.54-2.71 (m, 3 H), 3.88-4.08 (m, 1 H), 4.25-4.50 (m, 1 H), 7.06-7.18 (m, 1 H), 7.47-7.56 (m, 1 H), 7.70-7.83 (m, 1 H), 7.91-8.04 (m, 1 H), 8.19-8.33 (m, 1 H), 8.43-8.64 (m, 2 H), 8.86-8.88 (m, 1 H), 8.97-8.99 (m, 1 H), 9.35-9.50 (m, 1 H), 12.89-13.08 (m, 1 H).

Example 3186

 $N\hbox{-}[{\it cis}\hbox{-}4\hbox{-}(4\hbox{-}{\rm Methyl-quinolin-}2\hbox{-}{\rm ylamino})\hbox{-}{\rm cyclohexyl}]\hbox{-}6\hbox{-}{\rm trifluoromethyl-nicotina mide}$

20 hydrochloride

Step A: Synthesis of N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-6-trifluoromethyl-nicotinamide hydrochloride.

Using the procedure for the step A of example 3071, the title compound was obtained.

25 ESI MS m/e 451, M (free) + Na⁺; ¹H NMR (300 MHz, DMSO-d₆) δ 1.58-2.04 (m, 8 H), 2.53-2.75 (m, 3 H), 3.91-4.09 (m, 1 H), 4.22-4.44 (m, 1 H), 7.03-7.22 (m, 1 H), 7.45-7.59 (m, 1 H), 7.71-7.85 (m, 1 H), 7.91-8.10 (m, 2 H), 8.15-8.30 (m, 1 H), 8.42-8.54 (m, 1 H), 8.64-8.81 (m, 1 H), 9.12-9.21 (m, 1 H), 9.33-9.54 (m, 1 H), 12.88-13.00 (m, 1 H).

715

Example 3187

6-Imidazol-1-vl-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide

5 dihydrochloride

Step A: Synthesis of 6-imidazol-1-yl-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide dihydrochloride.

To a solution of 6-chloro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-

nicotinamide obtained in step A of example 3175 (250 mg) in BuOH (1 mL) were added imidazole (47 mg) and iPr₂NEt (172 mg). The mixture was heated in a microwave synthesizer at 220°C for 10 min and 230°C for 20 min. To the mixture was added saturated aqueous NaHCO₃ and the aqueous layer was extracted with CHCl₃ (three times). The combined organic layer was dried over MgSO₄,

filtrated, concentrated under reduced pressure, and purified by medium-pressure liquid

- 15 chromatography (NH-silica gel, 50% in EtOAc in nexane). To a solution of the above material in EtOAc (10 mL) was added 4 M hydrogen chloride in EtOAc (0.2 mL). The mixture was stirred at ambient temperature for 1 hr and concentrated under reduced pressure. A suspension of the above material in Et₂O (12 mL) was stirred at ambient temperature for 4 hr. The precipitate was collected by filtration, washed with Et₂O, and dried under reduced pressure to give
- 20 6-imidazol-1-yl-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide dihydrochloride (83 mg) as a white solid.

ESI MS m/e 427, M (free) + H⁺; ¹H NMR (300 MHz, DMSO-d₆) δ 1.35-2.39 (m, 8 H), 2.60-2.81 (m, 3 H), 3.92-4.28 (m, 2 H), 6.63-6.92 (m, 1 H), 7.09-8.23 (m, 8 H), 8.53-8.82 (m, 1 H), 8.95-9.41 (m, 2 H), 9.96-10.17 (m, 1 H), 13.97-14.19 (m, 1 H).

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Example 3188

hydrochloride

Step A: Synthesis of N-[cis-4-(4-dimethylamino-quinolin-2-ylamino)-cyclohexyl]-3,4-difluoro-benzamide hydrochloride.

- To a solution of 3,4-difluoro-benzoic acid (199 mg) and N²-(cis-4-amino-cyclohexyl)-N⁴-methyl-quinoline-2,4-diamine obtained in step E of example 1 (300 mg) in DMF (3 mL) were added Et₃N (0.35 mL), HOBt-H₂O (241 mg), and EDC-HCl (242 mg). The reaction mixture was stirred at ambient temperature for 15 hr. To the mixture was added water (4.8 mL) and the aqueous layer was extracted with CHCl₃ (three times). The combined organic layer was dried over
- 10 MgSO₄, filtered, concentrated under reduced pressure, and purified by medium-pressure liquid chromatography (NH-silica gel, 20% EtOAc in hexane). To a solution of the above material in EtOAc (4 mL) was added 4 M hydrogen chloride in EtOAc (0.5 mL). The mixture was stirred at ambient temperature for 1 hr. The precipitate was collected by filtration, washed with EtOAc, and dried under reduced pressure to give *N*-[cis-4-(4-dimethylamino-quinolin-2-ylamino)-cyclohexyl]-3,4-difluoro-
 - ESI MS m/e 425, M (free) + H^+ ; ¹H NMR (300 MHz, CDCl₃) δ 1.69-2.20 (m, 8 H), 3.24 (s, 6 H), 3.81-4.30 (m, 2 H), 5.82 (s, 1 H), 6.74-6.88 (m, 1 H), 7.10-7.40 (m, 2 H), 7.51-7.98 (m, 5 H), 8.86-8.99 (m, 1 H), 13.44-13.63 (m, 1 H).

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Example 3189

15 benzamide hydrochloride (263 mg) as a white solid.

5-Nitro-thiophene-3-carboxylic acid [cis-4-(4-dimethylamino-quinolin-2-ylamino)-cyclohexyl]-amide hydrochloride

25 Step A: Synthesis of 5-nitro-thiophene-3-carboxylic acid [cis-4-(4-dimethylamino-quinolin-2-ylamino)-cyclohexyl]-amide hydrochloride.

Using the procedure for the step A of example 3188, the title compound was obtained. ESI MS m/e 462, M (free) + Na $^+$; ¹H NMR (300 MHz, CDCl₃) δ 1.65-2.17 (m, 8 H), 3.25 (s, 6 H),

3.82-4.00 (m, 1 H), 4.00-4.23 (m, 1 H), 5.82 (s, 1 H), 7.25-7.40 (m, 1 H), 7.58-7.97 (m, 4 H) 8.28-8.42 (m, 2 H), 8.56-8.73 (m, 1 H), 13.02-13.30 (m, 1 H).

5 Example 3190

N-[cis-4-(4-Dimethylamino-quinolin-2-ylamino)-cyclohexylmethyl]-3,4-difluoro-benzamide hydrochloride

Step A: Synthesis of N-[cis-4-(4-dimethylamino-quinolin-2-ylamino)-cyclohexylmethyl]
10 3,4-difluoro-benzamide hydrochloride.

To a solution of N²-(cis-4-aminomethyl-cyclohexyl)-N⁴,N⁴-dimethyl-quimoline-2,4-diamine obtained in step B of example 7 (300 mg) in CHCl₃ (3 mL) were added iPr₂NEt (0.36 mL) and 3,4-difluoro-benzoyl chloride (194 mg). The mixture was stirred at ambient temperature for 6 hr. The reaction was quenched with saturated aqueous NaHCO₃ and the aqueous layer was extracted with CHCl₃ (three times). The combined organic layer was dried over MgSO₄, filtered, concentrated under reduced pressure, and purified by medium-pressure liquid chromatography (NH-silica gel, 9% to 20% EtOAc in hexane and 2% to 9% MeOH in CHCl₃) to give N-[cis-4-(4-dimethylamino-quinolin-2-ylamino)-cyclohexylmethyl]-3,4-difluoro-benzamide hydrochloride (272 mg) as white solid. ESI MS m/e 439, M (free) + H⁺; ¹H NMR (300 MHz, CDCl₃) δ 1.53-2.08 (m, 9 H), 3.21 (s, 6 H), 3.47-3.56 (m, 2 H), 3.86-3.98 (m, 1 H), 5.81 (s, 1 H), 6.95-7.09 (m, 1 H), 7.16-7.34 (m, 2 H), 7.53-7.68 (m, 2 H), 7.80-7.95 (m, 3 H), 9.08-9.22 (m, 1 H), 13.40-13.51 (m, 1 H).

Example 3191

25 1-(2,3-Dichloro-phenyl)-3-[cis-4-(4-dimethylamino-quinolin-2-ylamino)-cyclohexylmethyl]-urea hydrochloride

Step A: Synthesis of 1-(2,3-dichloro-phenyl)-3-[cis-4-(4-dimethylamino-quinolin-2-

ylamino)-cyclohexylmethyl]-urea hydrochloride.

To a solution of N^2 -(cis-4-aminomethyl-cyclohexyl)- N^4 , N^4 -dimethyl-quinoline-2,4-diamine obtained in step B of example 7 (300 mg) in DMSO (3 mL) was added 1,2-dichloro-4-isocyanato-benzene (207 mg). The mixture was stirred at ambient temperature for 12 hr and poured into water.

- 5 The precipitate was filtrated, washed with water, and purified by medium-pressure liquid chromatography (NH-silica gel, 25% to 50% EtOAc in hexane). To a solution of the above material in EtOAc (2 mL) was added 4 M hydrogen chloride in EtOAc (10 mL). The mixture was stirred at ambient temperature for 1 hr and concentrated under reduced pressure. A suspension of the residue in Et₂O (20 mL) was stirred at ambient temperature for 1 hr. The precipitate was collected by filtration,
- washed with Et₂O, and dried under reduced pressure to give

 1-(2,3-dichloro-phenyl)-3-[cis-4-(4-dimethylamino-quinolin-2-ylamino)-cyclohexylmethyl]-urea

 hydrochloride (170 mg) as a white solid.

ESI MS m/e 486, M⁺; ¹H NMR (300 MHz, CDCl₃) δ 1.51-2.18 (m, 9 H), 3.23 (s, 6 H), 3.36-3.44 (m, 2 H), 3.91-4.02 (m, 1 H), 5.78-5.88 (m, 1 H), 6.97-7.12 (m, 3 H), 7.26-7.35 (m, 1 H), 7.58-7.66 (m, 1 H)

15 1 H), 7.86 (m, J = 9.0 Hz, 2 H), 8.16 (dd, J = 8.2, 1.7 Hz, 1 H), 8.20-8.31 (m, 1 H), 8.65-8.76 (m, 1 H), 12.98-13.21 (m, 1 H).

Example 3192

20 N-[cis-4-(4-dimethylamino-5,6,7,8-tetrahydro-quinazolin-2-ylamino)-cyclohexyl]-3,4-difluoro-benzamide hydrochloride

Step A: Synthesis of N-[cis-4-(4-dimethylamino-5,6,7,8-tetrahydro-quinazolin-2-ylamino)-cyclohexyl]-3,4-difluoro-benzamide hydrochloride.

To a solution of 3,4-difluoro-benzoic acid (199 mg) and N^2 -(cis-4-amino-cyclohexyl)- N^4 , N^4 -dimethyl-5,6,7,8-tetrahydro-quinazoline-2,4-diamine in step D of example 3107 (304 mg) in DMF (4 mL) were added Et₃N (0.35 mL), HOBt-H₂O (241 mg), and EDC-HCl (242 mg). The reaction mixture was stirred at ambient temperature for 7 hr. To the reaction mixture was added water

(20 mL) and the suspension was stirred at ambient temperature for 1 hr. The precipitated was collected by filtration, washed with H₂O, and purified by medium-pressure liquid chromatography (NH-silica gel, 20% EtOAc in hexane). To a solution of the above material in EtOAc (10 mL) was added 4 M hydrogen chloride in EtOAc (0.2 mL). The mixture was stirred at ambient temperature for 1 hr. The
5 precipitate was collected by filtration, washed with EtOAc, and dried under reduced pressure to give N-[cis-4-(4-dimethylamino-5,6,7,8-tetrahydro-quinazolin-2-ylamino)-cyclohexyl]-3,4-difluoro-benzamide hydrochloride (252 mg) as a white solid.
ESI MS m/e 430, M (free) + H⁺; ¹H NMR (300 MHz, CDCl₃) δ 1.56-2.22 (m, 12 H), 2.48-2.84 (m, 4 H), 3.23 (s, 6 H), 3.92-4.33 (m, 2 H), 6.51-6.77 (m, 1 H), 7.01-7.30 (m, 1 H), 7.43-7.86 (m, 2 H),
10 8.28-8.57 (m, 1 H), 12.56 (m, 1 H).

Example 3193

5-Nitro-thiophene-3-carboxylic acid [cis-4-(4-dimethylamino-5,6,7,8-tetrahydro-quinazolin-15 2-ylamino)-cyclohexyl]-amide hydrochloride

Step A: Synthesis of 5-nitro-thiophene-3-carboxylic acid [cis-4-(4-dimethylamino-5,6,7,8-tetrahydro-quinazolin-2-ylamino)-cyclohexyl]-amide hydrochloride.

Using the procedure for the step A of example 3192, the title compound was obtained.

20 ESI MS m/e 467, M (free) + Na⁺; ¹H NMR (300 MHz, CDCl₃) δ 1.51-2.24 (m, 12 H), 2.51-2.62 (m, 2 H), 2.67-2.81 (m, 2 H), 3.23 (s, 6 H), 3.98-4.29 (m, 2 H), 7.42-7.48 (m, 1 H), 8.22-8.29 (m, 2 H), 8.37 (s, 1 H).

25 Example 3194

1-Methyl-4-nitro-1*H*-pyrrole-2-carboxylic acid [*cis*-4-(4-dimethylamino-5,6,7,8-tetrahydro-quinazolin-2-ylamino)-cyclohexyl]-amide hydrochloride

Step A: Synthesis of 1-methyl-4-nitro-1*H*-pyrrole-2-carboxylic acid [*cis*-4-(4-dimethylamino-5,6,7,8-tetrahydro-quinazolin-2-ylamino)-cyclohexyl]-amide hydrochloride

Using the procedure for the step A of example 3192, the title compound was obtained.

ESI MS m/e 442, M (free) + H⁺; ¹H NMR (300 MHz, CDCl₃) δ 1.57-2.13 (m, 12 H), 2.49-2.61 (m, 5 2 H), 2.68-2.81 (m, 2 H), 3.22 (s, 6 H), 3.93-4.04 (m, 4 H), 4.14-4.24 (m, 1 H), 7.04-7.12 (m, 1 H), 7.23-7.27 (m, 1 H), 7.49-7.54 (m, 1 H), 8.30-8.41 (m, 1 H), 12.66-12.92 (m, 1 H).

Example 3195

10 N-[cis-4-(4-Dimethylamino-5,6,7,8-tetrahydro-quinazolin-2-ylamino)-cyclohexylmethyl]-3,4-difluoro-benzamide hydrochloride

Step A: Synthesis of N-[cis-4-(4-dimethylamino-5,6,7,8-tetrahydro-quinazolin-2-ylamino)-cyclohexylmethyl]-3,4-difluoro-benzamide hydrochloride.

- To a solution of N²-(cis-4-aminomethyl-cyclohexyl)-N⁴,N⁴-dimethyl-5,6,7,8-tetrahydro-quinazoline-2,4-diamine in step A of example 3113 (300 mg) in CHCl₃ (3 mL) were added iPr₂NEt (0.36 mL) and 3,4-difluoro-benzoyl chloride (194 mg). The mixture was stirred at ambient temperature for 17 hr. The reaction was quenched with saturated aqueous NaHCO₃ and the aqueous layer was extracted with CHCl₃ (three times). The combined organic layer was dried over MgSO₄,
- 20 filtered, concentrated under reduced pressure, and purified by medium-pressure liquid chromatography (NH-silica gel, 33% EtOAc in hexane). To a solution of the above material in EtOAc (2 mL) was added 4 M hydrogen chloride in EtOAc (10 mL). The mixture was stirred at ambient temperature for 1 hr and concentrated under reduced pressure. A suspension of the residue in Et₂O (20 mL) was stirred at ambient tempareture for 1 hr. The precipitate was collected by filtration,
- washed with Et₂O, and dried under reduced pressure to give N-[cis-4-(4-dimethylamino-5,6,7,8-tetrahydro-quinazolin-2-ylamino)-cyclohexylmethyl]-3,4-difluoro-benzamide hydrochloride (263 mg) as a white solid.
 - ESI MS m/e 466, M (free) + Na⁺; 1 H NMR (300 MHz, CDCl₃) δ 1.50-1.96 (m, 13 H), 2.49-2.59 (m,

721

2 H), 2.66-2.77 (m, 2 H), 3.21 (s, 6 H), 3.42-3.51 (m, 2 H), 4.16-4.28 (m, 1 H), 6.91-7.01 (m, 1 H), 7.17-7.26 (m, 1 H), 7.80-7.92 (m, 2 H), 8.55 (d, *J* = 8.2 Hz, 1 H), 12.61-12.77 (m, 1 H).

5 Example 3196

1-(2,3-Dichloro-phenyl)-3-[cis-4-(4-dimethylamino-5,6,7,8-tetrahydro-quinazolin-2-ylamino)-cyclohexylmethyl]-urea hydrochloride

Step A: Synthesis of 1-(2,3-dichloro-phenyl)-3-[cis-4-(4-dimethylamino-5,6,7,8-tetrahydro-10 quinazolin-2-ylamino)-cyclohexylmethyl]-urea hydrochloride.

To a solution of N²-(cis-4-aminomethyl-cyclohexyl)-N⁴,N⁴-dimethyl-5,6,7,8-tetrahydro-quinazoline-2,4-diamine in step A of example 3113 (300 mg) in DMSO (3 mL) was added 1,2-dichloro-4-isocyanato-benzene (207 mg). The mixture was stirred at ambient temperature for 12 hr and poured into water. The precipitate was filtrated, washed with water, and purified by medium-pressure liquid chromatography (NH-silica gel, 25% to 50% EtOAc in hexane). To a solution of the above material in EtOAc (2 mL) was added 4 M hydrogen chloride in EtOAc (10 mL). The mixture was stirred at ambient temperature for 1 hr and concentrated under reduced pressure. A suspension of the residue in Et₂O (20 mL) was stirred at ambient tempareture for 1 hr. The precipitate was collected by filtration, washed with Et₂O, and dried under reduced pressure to give 1-(2,3-

20 dichloro-phenyl)-3-[*cis*-4-(4-dimethylamino-5,6,7,8-tetrahydro-quinazolin-2-ylamino)-cyclohexylmethyl]-urea hydrochloride (113 mg) as a white solid.

ESI MS m/e 491, M⁺; ¹H NMR (200 MHz, CDCl₃) δ 1.42-2.04 (m, 13 H), 2.46-2.80 (m, 4 H), 3.21 (s, 6 H), 3.29-3.44 (m, 2 H), 4.18-4.38 (m, 1 H), 6.80-7.22 (m, 3 H), 8.06-8.45 (m, 3 H), 12.04-12.29 (m, 1 H).

25

Example 3197

hydrochloride

Step A: Synthesis of N-[cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-3,4-difluoro-benzamide hydrochloride.

Using the procedure for the step D of example 3129, the title compound was obtained. ESI MS m/e 376, M (free) + H⁺; 1 H NMR (300 MHz, CDCl₃) δ 1.61-2.01 (m, 8 H), 3.17 (s, 3 H), 3.28 (s, 3 H), 3.98-4.32 (m, 2 H), 5.98 (d, J= 7.3 Hz, 1 H), 6.45-6.63 (m, 1 H), 7.11-7.30 (m, 1 H), 7.41-7.79 (m, 3 H), 8.67-8.94 (m, 1 H), 12.89-13.06 (m, 1 H).

10

Example 3198

5-Nitro-thiophene-3-carboxylic acid [cis-4-(4-dimethylamino-pyrimidine-2-ylamino)-cyclohexyl]-amide hydrochloride

15 Step A: Synthesis of 5-nitro-thiophene-3-carboxylic acid [cis-4-(4-dimethylamino-pyrimidine-2-ylamino)-cyclohexyl]-amide hydrochloride.

To a solution of 5-nitro-thiophene-3-carboxylic acid (265 mg) and *cis-N*²-(4-amino-cyclohexyl)-*N*⁴,*N*⁴-dimethyl-pyrimidine-2,4-diamine in step C of example 3129 (300 mg) in DMF (3 mL) were added Et₃N (0.43 mL), HOBt-H₂O (293 mg), and EDC-HCl (293 mg). The reaction 20 mixture was stirred at ambient temperature for 12 hr. To the reaction mixture was added water (20 mL) and the suspension was stirred at ambient temperature for 1 hr. The precipitated was collected by filtration, washed with H₂O, and purified by medium-pressure liquid chromatography (NH-silica gel, 20% to 50% EtOAc in hexane). To a solution of the above material in EtOAc (10 mL) was added 4 M hydrogen chloride in EtOAc (2 mL). The mixture was stirred at ambient temperature for 1 hr. The precipitate was collected by filtration, washed with EtOAc, and dried under reduced pressure to give 5-nitro-thiophene-3-carboxylic acid [*cis*-4-(4-dimethylamino-pyrimidine-2-ylamino)-cyclohexyl]-amide hydrochloride (71 mg) as a white solid.

ESI MS m/e 413, M (free) + Na⁺; ¹H NMR (300 MHz, CDCl₃) δ 1.62-2.02 (m, 8 H), 3.18 (s, 3 H).

3.27 (s, 3 H), 3.99-4.29 (m, 2 H) 5.99 (d, J=7.5 Hz, 1 H), 7.48-7.64 (m, 2 H), 8.34 (d, J=1.8 Hz, 1 H), 8.48 (d, J=1.8 Hz, 1 H), 8.50-8.67 (m, 1 H), 12.58-12.76 (m, 1 H).

5 Example 3199

5-(4-Chloro-phenyl)-furan-2-carboxylic acid [cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-amide hydrochloride

Step A: Synthesis of 5-(4-Chloro-phenyl)-furan-2-carboxylic acid [cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-amide hydrochloride.

Using the procedure for the step A of example 3198, the title compound was obtained. ESI MS m/e 462, M (free) + Na⁺; 1 H NMR (300 MHz, CDCl₃) δ 1.67-2.07 (m, 8 H), 3.17 (s, 3 H), 3.28 (s, 3 H), 4.01-4.27 (m, 2 H), 5.97 (d, J = 6.9 Hz, 1 H), 6.71 (d, J = 3.5 Hz, 1 H), 6.76-6.87 (m, 1 H), 7.17 (d, J = 3.5 Hz, 1 H), 7.36-7.55 (m, 3 H), 7.69-7.79 (m, 2 H), 8.65-8.86 (m, 1 H), 13.08-13.30 (m, 1 H).

Example 3200

- 4'-Fluoro-biphenyl-4-carboxylic acid [cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-
- 20 cyclohexyl]-amide hydrochloride

Step A: Synthesis of 4'-fluoro-biphenyl-4-carboxylic acid [cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-amide hydrochloride.

Using the procedure for the step A of example 3198, the title compound was obtained. 25 ESI MS m/e 456, M (free) + Na⁺; ¹H NMR (300 MHz, CDCl₃) δ 1.66-2.06 (m, 8 H), 3.17 (s, 3 H), 3.28 (s, 3 H), 4.06-4.32 (m, 2 H), 5.97 (d, J= 7.3 Hz, 1 H), 6.50-6.60 (m, 1 H), 7.09-7.20 (m, 2 H), 7.43-7.64 (m, 5 H), 7.85-7.91 (m, 2 H), 8.74-8.86 (m, 1 H), 12.98-13.23 (m, 1 H).

Example 3201

N-[cis-4-(4-Dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-2-(4-fluoro-phenoxy)-nicotinamide hydrochloride

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Step A: Synthesis of N-[cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-2-(4-fluoro-phenoxy)-nicotinamide hydrochloride.

Using the procedure for the step A of example 3198, the title compound was obtained. ESI MS m/e 473, M (free) + Na⁺; 1 H NMR (300 MHz, CDCl₃) δ 1.62-2.05 (m, 8 H), 3.16 (s, 3 H), 3.26 (s, 3 H), 4.07-4.24 (m, 2 H), 5.94 (d, J = 7.3 Hz, 1 H), 7.09-7.20 (m, 3 H), 7.23-7.32 (m, 2 H), 7.42-7.52 (m, 1 H), 7.81-7.94 (m, 1 H), 8.20 (dd, J = 4.8, 2.0 Hz, 1 H), 8.54 (dd, J = 7.5, 2.1 Hz, 1 H), 8.70-8.80 (m, 1 H), 13.23-13.38 (m, 1 H).

15 Example 3202

N-[cis-4-(4-Dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-C-(ethyl-phenyl-amino)-acetamide dihydrochloride

Step A: Synthesis of N-[cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-

20 C-(ethyl-phenyl-amino)-acetamide dihydrochloride.

Using the procedure for the step A of example 3198, the title compound was obtained. ESI MS m/e 419, M (free) + Na $^+$; ¹H NMR (300 MHz, CDCl₃) δ 1.14-1.35 (m, 3 H), 1.55-1.92 (m, 8 H), 3.15 (s, 3 H), 3.24 (s, 3 H), 3.45-3.64 (m, 2 H), 3.75-4.06 (m, 4 H), 5.91-6.03 (m, 1 H), 7.00-7.64 (m, 7 H), 8.32-8.48 (m, 1 H), 13.12-13.34 (m, 1 H).

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Example 3203

C-[cis-(4-Chloro-phenyl)-ethyl-amino]-N-[4-(4-dimethylamino-pyrimidin-2-ylamino)-

725

cyclohexyl]-acetamide dihydrochloride

Step A: Synthesis of C-[cis-(4-chloro-phenyl)-ethyl-amino]-N-[4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-acetamide dihydrochloride.

Using the procedure for the step A of example 3198, the title compound was obtained.

ESI MS m/e 431, M (free) + H⁺; ¹H NMR (300 MHz, CDCl₃) δ 1.12-1.24 (m, 3 H), 1.51-1.96 (m, 8 H), 3.15 (s, 3 H), 3.25 (s, 3 H), 3.43-3.55 (m, 2 H), 3.74-3.98 (m, 3 H), 4.01-4.18 (m, 1 H), 5.88-6.02 (m, 1 H), 6.68-6.87 (m, 3 H), 7.15-7.24 (m, 2 H), 7.43-7.52 (m, 1 H), 8.49-8.62 (m, 1 H), 13.11-13.28 (m, 1 H).

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Example 3204

2-(3,4-Difluoro-phenyl)-N-[cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-acetamide hydrochloride

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Step A: Synthesis of 2-(3,4-difluoro-phenyl)-*N*-[*cis*-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-acetamide hydrochloride.

Using the procedure for the step A of example 3198, the title compound was obtained. ESI MS m/e 390, M (free) + H⁺; 1 H NMR (300 MHz, DMSO-d₆) δ 1.46-1.87 (m, 8 H), 3.15 (s, 3 H), 3.18 (s, 3 H), 3.46 (s, 2 H), 3.58-3.75 (m, 1 H), 3.86-4.04 (m, 1 H), 6.36 (d, J=7.4 Hz, 1 H), 7.05-7.13 (m, 1 H), 7.27-7.40 (m, 2 H), 7.84-7.94 (m, 1 H), 8.10-8.19 (m, 1 H), 8.27-8.38 (m, 1 H), 12.14-12.23 (m, 1 H).

25 Example 3205

N-[cis-4-(4-Dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-3,5-difluoro-benzamide hydrochloride

Step A: Synthesis of N-[cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-3,5-difluoro-benzamide hydrochloride.

Using the procedure for the step D of example 3129, the title compound was obtained. ESI MS m/e 376, M (free) + H⁺; ¹H NMR (300 MHz, CDCl₃) δ 1.64-2.02 (m, 8 H), 3.17 (s, 3 H), 3.28 (s, 3 H), 4.01-4.31 (m, 2 H), 5.97 (d, J= 7.4 Hz, 1 H), 6.46-6.57 (m, 1 H), 6.87-6.98 (m, 1 H), 7.30-7.40 (m, 2 H), 7.49 (d, J= 7.4 Hz, 1 H), 8.77-8.93 (m, 1 H).

Example 3206

10 3-Chloro-N-[cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-4-fluoro-benzamide hydrochloride

Step A: Synthesis of 3-Chloro-N-[cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-4-fluoro-benzamide hydrochloride.

Using the procedure for the step A of example 3198, the title compound was obtained. ESI MS m/e 392, M (free) + H⁺; 1 H NMR (300 MHz, CDCl₃) δ 1.65-2.00 (m, 8 H), 3.17 (s, 3 H), 3.28 (s, 3 H), 4.03-4.30 (m, 2 H), 5.97 (d, J= 7.5 Hz, 1 H), 6.43-6.53 (m, 1 H), 7.19 (t, J= 8.5 Hz, 1 H), 7.43-7.54 (m, 1 H), 7.65-7.75 (m, 1 H), 7.90-7.97 (m, 1 H), 8.76-8.94 (m, 1 H), 12.95-13.14 (m, 1 H).

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Example 3207

4-Chloro-N-[cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-3-fluoro-benzamide hydrochloride

25 Step A: Synthesis of 4-Chloro-N-[cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-3-fluoro-benzamide hydrochloride.

Using the procedure for the step A of example 3198, the title compound was obtained.

ESI MS m/e 392, M (free) + H⁺; ¹H NMR (300 MHz, DMSO-d₆) δ 1.56-1.98 (m, 8 H), 3.05-3.27 (m,

727

6 H), 3.76-4.10 (m, 2 H), 6.37 (d, J= 7.6 Hz, 1 H), 7.65-7.80 (m, 2 H), 7.84-7.97 (m, 2 H), 8.21-8.34 (m, 1 H), 8.39-8.56 (m, 1 H), 12.09-12.27 (m, 1 H).

5 Example 3208

Pyridine-2-carboxylic acid [cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]amide hydrochloride

Step A: Synthesis of pyridine-2-carboxylic acid [cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-amide hydrochloride.

Using the procedure for the step A of example 3198, the title compound was obtained. ESI MS m/e 341, M (free) + H⁺; 1 H NMR (300 MHz, CDCl₃) δ 1.72-2.07 (m, 8 H), 3.17 (s, 3 H), 3.27 (s, 3 H), 4.02-4.22 (m, 2 H), 5.97 (d, J = 7.4 Hz, 1 H), 7.36-7.55 (m, 2 H), 7.76-7.88 (m, 1 H), 8.10-8.29 (m, 2 H), 8.52-8.70 (m, 2 H).

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Example 3209

 $N\hbox{-}[{\it cis}\hbox{-}4\hbox{-}(4\hbox{-}{\rm Dimethylamino-pyrimidin-}2\hbox{-}ylamino)\hbox{-}cyclohexyl]\hbox{-}nicotinamide dihydrochloride}$

20 Step A: Synthesis of N-[cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-nicotinamide dihydrochloride.

Using the procedure for the step A of example 3198, the title compound was obtained. ESI MS m/e 341, M (free) + H⁺; 1 H NMR (300 MHz, DMSO-d₆) δ 1.62-2.03 (m, 8 H), 3.15 (s, 3 H), 3.20 (s, 3 H), 3.83-4.08 (m, 2 H), 6.37 (d, J= 7.4 Hz, 1 H), 7.81-7.98 (m, 2 H), 8.34-8.48 (m, 1 H), 25 8.58-8.66 (m, 1 H), 8.76-8.93 (m, 2 H), 9.17-9.23 (m, 1 H), 12.30-12.48 (m, 1 H).

728

 $\label{eq:N-control} N\mbox{-}[\emph{cis}\mbox{-}4\mbox{-}(4\mbox{-}Dimethylamino\mbox{-}pyrimidin-}2\mbox{-}ylamino\mbox{-}cyclohexyl]\mbox{-}isonicotinamide}$ $\mbox{dihydrochloride}$

Step A: Synthesis of N-[cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-

5 isonicotinamide dihydrochloride.

Using the procedure for the step A of example 3198, the title compound was obtained. ESI MS m/e 341, M (free) + H⁺; 1 H NMR (300 MHz, DMSO-d₆) δ 1.67-1.99 (m, 8 H), 3.16 (s, 3 H), 3.20 (s, 3 H), 3.84-4.07 (m, 2 H), 6.37 (d, J = 7.4 Hz, 1 H), 7.86-8.02 (m, 1 H), 8.25 (d, J = 6.5 Hz, 2 H), 8.48-8.57 (m, 1 H), 8.95-9.13 (m, 3 H), 12.53-12.69 (m, 1 H).

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Example 3211

5-Bromo-N-[cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-nicotinamide hydrochloride

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Step A: Synthesis of 5-Bromo-N-[cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-nicotinamide hydrochloride.

Using the procedure for the step A of example 3198, the title compound was obtained.

ESI MS m/e 419, M (free) + H⁺; ¹H NMR (300 MHz, CDCl₃) δ 1.64-2.07 (m, 8 H), 3.18 (s, 3 H), 3.28

20 (s, 3 H), 4.04-4.31 (m, 2 H), 5.95-6.04 (m, 1 H), 7.37-7.65 (m, 2 H), 8.42 (brs, 1 H), 8.63-8.74 (m, 1 H), 8.79 (brs, 1 H), 9.12 (brs, 1 H), 12.72-12.97 (m, 1 H).

Example 3212

25 N-[cis-4-(4-Dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-6-trifluoromethyl-nicotinamide hydrochloride

Step A: Synthesis of N-[cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-6-

trifluoromethyl-nicotinamide hydrochloride.

Using the procedure for the step A of example 3198, the title compound was obtained. ESI MS m/e 409, M (free) + H⁺; 1 H NMR (300 MHz, CDCl₃) δ 1.63-2.06 (m, 8 H), 3.18 (s, 3 H),3.27 (s, 3 H), 4.07-4.34 (m, 2 H), 5.98 (d, J= 7.4 Hz, 1 H), 7.47-7.62 (m, 2 H), 7.72 (d, J= 8.0 Hz, 1 H), 5.835-8.45 (m, 1 H), 8.57-8.74 (m, 1 H), 9.24-9.31 (m, 1 H).

Example 3213

4-Chloro-pyridine-2-carboxylic acid [cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-

10 cyclohexyl]-amide hydrochloride

Step A: Synthesis of 4-chloro-pyridine-2-carboxylic acid [cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-amide hydrochloride.

Using the procedure for the step A of example 3198, the title compound was obtained.

15 ESI MS m/e 375, M (free) + H⁺; ¹H NMR (300 MHz, CDCl₃) δ 1.71-2.09 (m, 8 H), 3.18 (s, 3 H), 3.28 (s, 3 H), 4.01-4.24 (m, 2 H), 5.88-6.08 (m, 1 H), 7.39-7.59 (m, 2 H), 8.05-8.35 (m, 2 H), 8.43-8.72 (m, 2 H), 13.20-13.45 (m, 1 H).

20 Example 3214

N-[cis-4-(4-Dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-4-fluoro-benzamide hydrochloride

Step A: Synthesis of N-[cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-

25 4-fluoro-benzamide hydrochloride.

Using the procedure for the step D of example 3129, the title compound was obtained. ESI MS m/e 380, M (free) + Na⁺; 1 H NMR (300 MHz, CDCl₃) δ 1.63-2.24 (m, 8 H), 3.17 (s, 3 H), 3.27 (s, 3 H), 4.01-4.32 (m, 2 H), 5.97 (d, J= 7.3 Hz, 1 H), 6.38-6.57 (m, 1 H), 7.01-7.17 (m, 2 H),

WO 2004/087669

730

7.41-7.54 (m, 1 H), 7.77-7.91 (m, 2 H), 8.76-8.84 (m, 1 H), 12.86-13.14 (m, 1 H).

Example 3215

5 3-Chloro-N-[cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-5-fluoro-benzamide hydrochloride

Step A: Synthesis of 3-Chloro-N-[cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-5-fluoro-benzamide hydrochloride.

10 Using the procedure for the step A of example 3198, the title compound was obtained.

ESI MS m/e 414, M (free) + Na⁺; 1 H NMR (300 MHz, CDCl₃) δ 1.64-2.03 (m, 8 H), 3.17 (s, 3 H), 3.28 (s, 3 H), 4.02-4.31 (m, 2 H), 5.97 (d, J = 7.4 Hz, 1 H), 6.53-6.67 (m, 1 H), 7.16-7.23 (m, 1 H), 7.41-7.51 (m, 2 H), 7.58-7.64 (m, 1 H), 8.76-8.91 (m, 1 H).

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Example 3216

N-[cis-4-(4-Dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-3,4,5-trifluoro-benzamide hydrochloride

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Step A: Synthesis of *N*-[*cis*-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-3,4,5-trifluoro-benzamide hydrochloride.

Using the procedure for the step A of example 3198, the title compound was obtained.

25 ESI MS m/e 416, M (free) + Na⁺; ¹H NMR (300 MHz, CDCl₃) δ 1.66-2.03 (m, 8 H), 3.18 (s, 3 H), 3.28 (s, 3 H), 4.01-4.34 (m, 2 H), 5.98 (d, J = 7.4 Hz, 1 H), 6.70-6.79 (m, 1 H), 7.42-7.63 (m, 3 H), 8.73-8.86 (m, 1 H).

Example 3217

 ${\bf 3,5-Di-tert-butyl-} N-[cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-4-hydroxy-benzamide hydrochloride$

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Step A: Synthesis of 3,5-di-tert-butyl-N-[cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-4-hydroxy-benzamide hydrochloride.

Using the procedure for the step A of example 3198, the title compound was obtained.

10 ESI MS m/e 490, M (free) + Na⁺; ¹H NMR (300 MHz, CDCl₃) δ 1.47 (s, 18 H), 1.63-2.13 (m, 8 H), 3.17 (s, 3 H), 3.28 (s, 3 H), 4.05-4.27 (m, 2 H), 5.52 (s, 1 H), 5.90-6.02 (m, 1 H), 6.57-6.73 (m, 1 H), 7.41-7.55 (m, 1 H), 7.63 (s, 2 H), 8.60-8.77 (m, 1 H), 13.00-13.24 (m, 1 H).

15 Example 3218

1-(2,3-Dichloro-phenyl)-3-[cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-urea hydrochloride

Step A: Synthesis of 1-(2,3-dichloro-phenyl)-3-[cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-20 cyclohexyl]-urea hydrochloride.

To a solution of N²-(cis-4-amino-cyclohexyl)-N⁴,N⁴-dimethyl-pyrimidine-2,4-diamine in step C of example 3129 (300 mg) in DMSO (3 mL) was added 1,2-dichloro-3-isocyanato-benzene (264 mg). The mixture was stirred at ambient temperature for 12 hr and poured into water. The precipitate was filtrated, washed with water, and purified by medium-pressure liquid chromatography (NH-silica gel, 25% to 50% EtOAc in hexane). To a solution of the above material in EtOAc (2 mL) was added 4 M hydrogen chloride in EtOAc (10 mL). The mixture was stirred at ambient temperature for 1 hr and concentrated under reduced pressure. A suspension of the residue in Et₂O (20 mL) was stirred at ambient tempareture for 1 hr. The

precipitate was collected by filtration, washed with Et₂O, and dried under reduced pressure to give 1-(2,3-dichloro-phenyl)-3-[cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]- urea hydrochloride (421 mg) as a white solid.

ESI MS m/e 445, M (free) + Na⁺; ¹H NMR (200 MHz, CDCl₃) δ 1.63-2.19 (m, 8 H), 3.15 (s, 3 H), 5.25 (s, 3 H), 3.80-4.22 (m, 2 H), 5.94 (d, J = 7.4 Hz, 1 H), 7.00-7.19 (m, 2 H), 7.43-7.64 (m, 2 H), 8.16 (dd, J = 8.3, 1.7 Hz, 1 H), 8.37-8.52 (m, 1 H), 12.70-13.00 (m, 1 H).

Example 3219

10 N-[cis-4-(4-Dimethylamino-pyrimidin-2-ylamino)-cyclohexylmethyl]-3,4-difluorobenzamide hydrochloride

Step A: Synthesis of *N*-[*cis*-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexylmethyl]-3,4-difluoro-benzamide hydrochloride.

To a solution of N²-(cis-4-aminomethyl-cyclohexyl)-N⁴,N⁴-dimethyl-pyrimidine-2,4-diamine in step B of example 3145 (300 mg) in CHCl₃ (3 mL) were added iPr₂NEt (0.59 mL) and 3,4-difluoro-benzoyl chloride (233 mg). The mixture was stirred at ambient temperature for 17 hr. The reaction was quenched with saturated aqueous NaHCO₃ and the aqueous layer was extracted with CHCl₃ (three times). The combined organic layer was dried over MgSO₄, filtered, concentrated under reduced pressure, and purified by medium-pressure liquid chromatography (NH-silica gel, 33% EtOAc in hexane). To a solution of the above material in EtOAc (2 mL) was added 4 M hydrogen chloride in EtOAc (10 mL). The mixture was stirred at ambient temperature for 1 hr and concentrated under reduced pressure. A suspension of the residue in Et₂O (20 mL) was stirred at ambient tempareture for 1 hr. The precipitate was collected by filtration, washed with Et₂O, and dried under reduced pressure to give N-[cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexylmethyl]-3,4-difluoro-benzamide hydrochloride (155 mg) as a white solid.

ESI MS m/e 412, M (free) + Na⁺; ¹H NMR (200 MHz, CDCl₃) δ 1.26-2.03 (m, 9 H), 3.16 (s, 3 H),

3.26 (s, 3 H), 3.37-3.61 (m, 2 H), 4.18-4.35 (m, 1 H), 5.94 (d, J = 7.4 Hz, 1 H), 6.82-7.33 (m, 2 H),

733

7.46 (d, J = 7.4 Hz, 1 H), 7.74-8.07 (m, 2 H), 8.83-9.12 (m, 1 H).

Example 3220

5 N-[cis-4-(4-Dimethylamino-pyrimidin-2-ylamino)-cyclohexylmethyl]-2-(2,3,6-trichloro-phenyl)-acetamide hydrochloride

Step A: Synthesis of N-[cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexylmethyl]-2-(2,3,6-trichloro-phenyl)-acetamide hydrochloride.

10 Using the procedure for the step C of example 3118, the title compound was obtained.

ESI MS m/e 492, M (free) + Na⁺; ¹H NMR (300 MHz, CDCl₃) 8 1.57-1.98 (m, 9 H), 3.16 (s, 3 H), 3.21-3.33 (m, 4 H), 4.16 (s, 2 H), 4.20-4.34 (m, 1 H), 5.95-5.99 (m, 1 H), 6.51-6.64 (m, 1 H), 7.23-7.51 (m, 3 H), 8.75-8.83 (m, 1 H), 12.80-12.95 (m, 1 H).

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Example 3221

9H-Xanthene-9-carboxylic acid [cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexylmethyl]-amide hydrochloride

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Step A: Synthesis of 9*H*-xanthene-9-carboxylic acid [cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexylmethyl]-amide hydrochloride.

Using the procedure for the step C of example 3118, the title compound was obtained.

25 ESI MS m/e 480, M (free) + Na⁺; ¹H NMR (300 MHz, CDCl₃) δ 1.27-1.94 (m, 9 H), 3.05-3.19 (m, 5 H), 3.24 (s, 3 H), 4.14-4.28 (m, 1 H), 5.10 (s, 1 H), 5.91 (d, *J* = 7.4 Hz, 1 H), 6.19-6.33 (m, 1 H), 6.98-7.18 (m, 3 H), 7.20-7.31 (m, 2 H), 7.37-7.54 (m, 3 H), 8.62-8.82 (m, 1 H) 12.88-13.08 (m, 1 H).

Example 3222

 $1-(2,3-Dichloro-phenyl)-3-[\it cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexylmethyl]-$ urea hydrochloride

5

Step A: Synthesis of 1-(2,3-dichloro-phenyl)-3-[cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexylmethyl]-urea hydrochloride.

To a solution of N^2 -(cis-4-aminomethyl-cyclohexyl)- N^4 , N^4 -dimethyl-

pyrimidine-2,4-diamine in step B of example 3145 (300 mg) in DMSO (3 mL) was added 1,2-dichloro-3-isocyanato-benzene (249 mg). The mixture was stirred at ambient temperature for 15 hr and poured into water (20 mL). The precipitate was filtrated, washed with water, and purified by medium-pressure liquid chromatography (NH-silica gel, 25% to 50% EtOAc in hexane). To a solution of the above material in EtOAc (2 mL) was added 4 M hydrogen chloride in EtOAc (10 mL). The mixture was stirred at ambient temperature for 1 hr and concentrated under reduced pressure.

15 A suspension of the residue in Et₂O (20 mL) was stirred at ambient tempareture for 1 hr. The precipitate was collected by filtration, washed with Et₂O, and dried under reduced pressure to 1-(2,3-dichloro-phenyl)-3-[cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexylmethyl]-urea hydrochloride (260 mg) as a white solid.

ESI MS m/e 437, M⁺; ¹H NMR (200 MHz, CDCl₃) δ 1.35-2.10 (m, 9 H), 3.16 (s, 3 H), 3.26 (s, 3 H), 20 3.32-3.47 (m, 2 H), 4.27-4.47 (m, 1 H), 5.96 (d, J= 7.5 Hz, 1 H), 6.80-7.20 (m, 3 H), 7.47 (d, J= 7.5 Hz, 1 H), 8.08-8.37 (m, 2 H), 8.63-8.93 (m, 1 H).

Example 3223

25 3,4-Difluoro-N-[cis-4-(4-methylamino-pyrimidin-2-ylamino)-cyclohexyl]-benzamide-hydrochloride

Step A: Synthesis of (2-chloro-pyrimidin-4-yl)-methyl-amine.

735

To a solution of 2,4-dichloro-pyrimidine (15.0 g) in THF (150 mL) was added 40% aqueous MeNH₂ (19.5 g). The mixture was stirred at ambient temperature for 1.5 hr. The solution was poured into saturated aqueous NaHCO₃ and the aqueous layer was extracted with CHCl₃ (three times). The combined organic layer was dried over MgSO₄, filtrated, concentrated, and purified by flash

5 chromatography (NH-silica, 20% EtOAc in hexane) to give (2-chloro-pyrimidin-4-yl)-methyl-amine (10.0 g) as a white solid and (4-chloro-pyrimidin-2-yl)-methyl-amine (0.87 g, 6%) as a white solid. (2-chloro-pyrimidin-4-yl)-methyl-amine;

ESI MS m/e 143, M⁺; ¹H NMR (300 MHz, CDCl₃) δ 3.01 (d, J = 5.0 Hz, 3 H), 5.58-5.96 (m, 1 H), 6.55 (d, J = 5.1 Hz, 1 H), 8.09-8.23 (m, 1 H).

10 (4-chloro-pyrimidin-2-yl)-methyl-amine;
 ESI MS m/e 143, M⁺; ¹H NMR (300 MHz, CDCl₃) δ 2.98 (d, J = 5.0 Hz, 3 H), 6.27 (d, J = 6.1 Hz, 1 H), 7.93-8.20 (m, 1 H).

Step B: Synthesis of [cis-4-(4-methylamino-pyrimidin-2-ylamino)-cyclohexyl] 15 carbamic acid tert-butyl ester.

A mixture of (2-chloro-pyrimidin-4-yl)-methyl-amine (2.50 g) and (*cis*-4-amino-cyclohexyl)-carbamic acid *tert*-butyl ester obtained in step B of example 1 (4.10 g) in BuOH (2.50 mL) was stirred at reflux for 24 hr. The reaction mixture was poured into saturated aqueous NaHCO₃, and the aqueous layer was extracted with CHCl₃ (three times). The combined organic layer was dried over MgSO₄, filtrated, concentrated under reduced pressure, and purified by medium-pressure liquid chromatography (NH-silica, 25% to 66% EtOAc in hexane) to give [*cis*-4-(4-methylamino-pyrimidin-2-ylamino)-cyclohexyl]-carbamic acid tert-butyl ester (2.63 g) as a white solid.

ESI MS m/e 344, M + Na⁺; ¹H NMR (300 MHz, CDCl₃) 8 1.36-1.88 (m, 17 H), 2.89 (d, *J* = 5.1 Hz, 3 H), 3.53-3.69 (m, 1 H), 3.84-4.04 (m, 1 H), 4.44-4.70 (m, 2 H), 4.76-4.86 (m, 1 H), 5.69-5.72 (m, 25 = 1 H), 7.80-7.91 (m, 1 H).

Step C: Synthesis of N^2 -(cis-4-amino-cyclohexyl)- N^4 -methyl-pyrimidine-2,4-diamine.

A solution of [cis-4-(4-methylamino-pyrimidin-2-ylamino)-cyclohexyl]-carbamic acid

tert-butyl ester (4.76 g) in EtOAc (48 mL) was cooled on an ice-bath and 4 M hydrogen chloride in EtOAc (24 mL) was added. The mixture was stirred at ambient temperature for 4 hr and concentrated under reduced pressure. The residue was dissolved in 1 M aqueous NaOH and the aqueous layer was extracted with CHCl₃ (five times). The combined organic layer was dried over MgSO₄, filtered, concentrated under reduced pressure, and dried under reduced pressure to give N²-(cis-4-amino-cyclohexyl)-N⁴-methyl-pyrimidine-2,4-diamine (3.00 g, 80%) as a white solid.

ESI MS m/e 222, M + H⁺; ¹H NMR (300 MHz, CDCl₃) δ 0.95-1.92 (m, 10 H), 2.78-2.99 (m, 4 H), 3.92-4.08 (m, 1 H), 4.56-4.75 (m, 1 H), 4.84-4.97 (m, 1 H), 5.68 (d, J = 5.9 Hz, 1 H), 7.85 (d, J = 5.7 Hz, 1 H).

10

Step D: Synthesis of 3,4-difluoro-N-[cis-4-(4-methylamino-pyrimidin-2-ylamino)-cyclohexyl]-benzamide hydrochloride.

To a solution of 3,4-difluoro-benzoic acid (196 mg) and N²-(cis-4-amino-cyclohexyl)N⁴-methyl-pyrimidine-2,4-diamine (250 mg) in DMF (4 mL) were added Et₃N (0.38 mL), HOBt-H₂O

15 (259 mg), and EDC-HCl (238 mg). The reaction mixture was stirred at ambient temperature for 12
hr. To the mixture was added water (20 mL) and the aqueous layer was extracted with CHCl₃ (three times). The combined organic layer was dried over MgSO₄, filtered, concentrated under reduced pressure, and purified by medium-pressure liquid chromatography (NH-silica gel, 33% to 75% EtOAc in hexane). To a solution of the above material in EtOAc (10 mL) was added 4 M hydrogen chloride

20 in EtOAc (0.2 mL). The mixture was stirred at ambient temperature for 1 hr. The precipitate was collected by filtration, washed with EtOAc, and dried under reduced pressure to give

3,4-difluoro-N-[cis-4-(4-methylamino-pyrimidin-2-ylamino)-cyclohexyl]benzamide hydrochloride (317 mg) as a white solid.
ESI MS m/e 362, M (free) + H⁺; ¹H NMR (300 MHz, DMSO-d₆) δ 1.59-1.90 (m, 8 H), 2.89 (d, J =

25 4.6 Hz, 3 H), 3.80-4.11 (m, 2 H), 6.03-6.13 (m, 1 H), 7.47-8.03 (m, 4 H), 8.27-8.49 (m, 2 H),

8.82-9.06 (m, 1 H), 11.92-12.11 (m, 1 H).

737

Example 3224

 ${\bf 3-Chloro-4-fluoro-} N-[{\it cis-4-(4-methylamino-pyrimidin-2-ylamino)-cyclohexyl]-benzamide hydrochloride}$

5 Step A: Synthesis of 3-chloro-4-fluoro-N-[cis-4-(4-methylamino-pyrimidin-2-ylamino)-cyclohexyl]-benzamide hydrochloride.

Using the procedure for the step C of example 3223, the title compound was obtained.

ESI MS m/e 378, M (free) + H⁺; ¹H NMR (300 MHz, DMSO-d₆) δ 1.59-1.90 (m, 8 H), 2.89 (d, J= 10 4.6 Hz, 3 H), 3.77-4.10 (m, 2 H), 6.00-6.12 (m, 1 H), 7.49-7.60 (m, 1 H), 7.67-7.76 (m, 1 H), 7.85-7.94 (m, 1 H), 8.11 (dd, J= 7.1, 2.2 Hz, 1 H), 8.24-8.51 (m, 2 H), 8.82-8.94 (m, 1 H), 11.80-11.98 (m, 1 H).

15 Example 3225

N-[cis-4-(4-Ethylamino-pyrimidin-2-ylamino)-cyclohexyl]-3,4-difluoro-benzamide hydrochloride

Step A: Synthesis of (2-chloro-pyrimidin-4-yl)-ethyl-amine.

- To the solution of 2,4-dichloro-pyrimidine (5.00 g) in THF (50 mL) was added 70% aqueous EtNH₂ (5.40 g). The mixture was stirred at ambient temperature for 1 hr. To the residue was added saturated aqueous NaHCO₃ and the aqueous layer was extracted with CHCl₃ (two times). The combined organic layer was dried over MgSO₄, filtered, concentrated under reduced pressure, and purified flash chromatography (silica gel, 17% to 50% EtOAc in hexane) to give
- 25 (2-chloro-pyrimidin-4-yl)-ethyl-amine (3.69 g) as a white solid and (4-chloro-pyrimidin-2-yl)-ethyl-amine (1.28 g) as a white solid.

(2-chloro-pyrimidin-4-yl)-ethyl-amine;

ESI MS m/e 157, M⁺; ¹H NMR (500 MHz, CDCl₃) δ 1.26 (t, J = 7.3 Hz, 3 H), 3.16-3.62 (m, 2 H),

738

4.80-5.95 (m, 1 H), 6.23 (d, J = 5.8 Hz, 1 H), 8.02-8.22 (m, 1 H). (4-chloro-pyrimidin-2-yl)-ethyl-amine; CI MS m/e 158, M + H⁺; ¹H NMR (500 MHz, CDCl₃) δ 1.23 (t, J = 7.5 Hz, 3 H), 3.42-3.49 (m, 2 H),

5

Step B: Synthesis of N-[cis-4-(4-ethylamino-pyrimidin-2-ylamino)-cyclohexyl]-3,4-difluoro-benzamide hydrochloride.

5.30-5.62 (m, 1 H), 6.54 (d, J = 5.2 Hz, 1 H), 8.02-8.22 (m, 1 H).

To a solution of N-(cis-4-amino-cyclohexyl)-3,4-difluoro-benzamide obtained in step D of example 3031 (300 mg) in BuOH (1 mL) was added (2-chloro-pyrimidin-4-yl)-

- ethyl-amine (532 mg). The mixture was heated in a microwave synthesizer at 200°C for 30 min. To the mixture was added saturated aqueous NaHCO3 and the aqueous layer was extracted with CHCl3 (three times). The combined organic layer was dried over MgSO4, filtrated, concentrated under reduced pressure, and purified by medium-pressure liquid chromatography (NH-silica gel, 20% to 50% in EtOAc in nexane). To a solution of the above material in EtOAc (10.0 mL) was added 4 M hydrogen chloride in EtOAc (5.00 mL). The mixture was stirred at ambient temperature for 1 hr and concentrated under reduced pressure. A suspension of the above material in Et₂O (20 mL) was stirred at ambient tempareture for 4 hr. The precipitate was collected by filtration, washed with Et₂O, and dried under reduced pressure to give N-[cis-4-(4-ethylamino-pyrimidin-2-ylamino)-cyclohexyl]-3,4-difluoro-benzamide hydrochloride (398 mg) as a white solid.
- 20 ESI MS m/e 398, M (free) + Na⁺; ¹H NMR (500 MHz, CDCl₃) δ 1.19-1.42 (m, 3 H), 1.61-2.05 (m, 8 H), 3.46-3.65 (m, 2 H), 4.00-4.34 (m, 2 H), 5.85-6.00 (m, 1 H), 6.42-6.72 (m, 2 H), 7.11-7.37 (m, 2 H), 7.52-7.82 (m, 2 H), 8.68-8.90 (m, 1 H).

25 Example 3226

N-{cis-4-[4-(Ethyl-methyl-amino)-pyrimidin-2-ylamino]-cyclohexyl}-3,4-difluorobenzamide hydrochloride

Step A: Synthesis of (2-chloro-pyrimidin-4-yl)-ethyl-methyl-amine.

To the solution of 2,4-dichloro-pyrimidine (5.00 g) in THF (50 mL) was added ethyl-methyl-amine (2.08 g). The mixture was stirred at ambient temperature for 1 hr. To the residue was added saturated aqueous NaHCO₃ and the aqueous layer was extracted with CHCl₃ (two times).

- The combined organic layer was dried over MgSO₄, filtered, concentrated under reduced pressure, and purified flash chromatography (silica gel, 17% to 50% EtOAc in hexane) to give (2-chloro-pyrimidin-4-yl)-ethyl-methyl-amine (4.49 g) as a white solid and (4-chloro-pyrimidin-2-yl)-ethyl-methyl-amine (0.91 g) as a colorless oil.
 - (2-chloro-pyrimidin-4-yl)-ethyl-methyl-amine;
- 10 CI MS m/e 172, M (free) + H⁺; 1 H NMR (500 MHz, CDCl₃) δ 1.18 (t, J = 3.0 Hz, 3 H), 3.06 (brs, 3 H), 3.35-3.70 (m, 2 H), 6.29 (d, J = 4.8 Hz, 1 H), 7.99(d, J = 6.1 Hz, 1 H). (4-chloro-pyrimidin-2-yl)-ethyl-methyl-amine;

CI MS m/e 172, M + H⁺; ¹H NMR (500 MHz, CDCl₃) δ 1.17 (t, J = 3.0 Hz, 3 H), 3.10 (s, 3 H), 3.66 (q, J = 7.0 Hz, 2 H), 6.45 (d, J = 5.0 Hz, 1 H), 8.14 (d, J = 5.0 Hz, 1 H).

15

Step B: Synthesis of *N*-{*cis*-4-[4-(ethyl-methyl-amino)-pyrimidin-2-ylamino]-cyclohexyl}-3,4-difluoro-benzamide hydrochloride.

Using the procedure for the step B of example 3225, the title compound was

20 obtained.

ESI MS m/e 412, M (free) + Na⁺; ¹H NMR (300 MHz, CDCl₃) δ 1.18-1.33 (m, 3 H), 1.64-2.03 (m, 8 H), 3.13-3.32 (m, 3 H), 3.44-3.56 (m, 1 H), 3.67-3.82 (m, 1 H), 4.04-4.31 (m, 2 H), 5.90-6.00 (m, 1 H), 6.59-6.72 (m, 1 H), 7.14-7.27 (m, 1 H), 7.43-7.62 (m, 2 H), 7.68-7.79 (m, 1 H), 8.71-8.83 (m, 1 H).

25

Example 3227

3,4-Difluoro-N-(cis-4-{4-[(2-hydroxy-ethyl)-methyl-amino]-pyrimidin-2-ylamino}-

740

cyclohexyl)-benzamide hydrochloride

Step A: Synthesis of [(2-chloro-pyrimidin-4-yl)-methyl-amino]-ethanol.

To the solution of 2,4-dichloro-pyrimidine (5.00 g) in THF (50 mL) was added

- 5 2-methylamino-ethanol (2.65 g). The mixture was stirred at ambient temperature for 1hr. To the residue was added saturated aqueous NaHCO₃ and the aqueous layer was extracted with CHCl₃ (two times). The combined organic layer was dried over MgSO₄, filtered, concentrated under reduced pressure, and purified flash chromatography (silica gel, 17% to 50% EtOAc in hexane) to give [(2-chloro-pyrimidin-4-yl)-methyl-amino]-ethanol (3.50 g) as a white solid and [(4-chloro-
- 10 pyrimidin-2-yl)-methyl-amino]-ethanol (827 mg) as a white solid.

[(2-chloro-pyrimidin-4-yl)-methyl-amino]-ethanol;

ESI MS m/e 188, M (free) + H⁺; ¹H NMR (500 MHz, CDCl₃) δ 2.91 (brs, 3 H), 3.13 (s, 3 H), 3.64-3.92 (m, 4 H), 6.46-6.49 (m, 1 H), 7.99 (d, J = 6.1 Hz, 1 H).

[(4-chloro-pyrimidin-2-yl)-methyl-amino]-ethanol

15 ESI MS m/e 210, M + Na⁺; 1 H NMR (500 MHz, CDCl₃) δ 3.23 (s, 3 H), 3.76-3.92 (m, 4 H), 6.52 (d, J = 5.2 Hz, 1 H), 8.12 (d, J = 4.6 Hz, 1 H).

Step B: Synthesis of 3,4-difluoro-*N*-(*cis*-4-{4-[(2-hydroxy-ethyl)-methyl-amino]-pyrimidin-2-ylamino}-cyclohexyl)-benzamide hydrochloride.

Using the procedure for the step B of example 3225, the title compound was obtained.

ESI MS m/e 428, M (free) + Na $^{+}$; ¹H NMR (300 MHz, DMSO-d₆) δ 1.61-1.98 (m, 8 H), 3.13-3.25 (m, 3 H), 3.54-4.31 (m, 5 H), 4.76-5.02 (m, 1 H), 6.26-6.52 (m, 1 H), 7.48-7.62 (m, 1 H), 7.68-8.17 (m, 4 H), 8.28-8.47 (m, 1 H), 11.74-11.95 (m, 1 H).

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Example 3228

3-Chloro-N-[cis-4-(4-dimethylamino-5-methyl-pyrimidin-2-ylamino)-cyclohexyl]-4-fluoro-

PCT/JP2004/004624

benzamide hydrochloride

15 g) as a brown solid.

Step A: Synthesis of N-(cis-4-amino-cyclohexyl)-3-chloro-4-fluoro-benzamide.

To a solution of 3-chloro-4-fluoro-benzoic acid (26.9 g) and (cis-4-amino-

5 cyclohexyl)-carbamic acid *tert*-butyl ester (30.0 g) in DMF (300 mL) were added Et₃N (46.8 mL), HOBt-H₂O (32.2 g), and EDC-HCl (29.5 g). The reaction mixture was stirred at ambient temperature for 20 hr. To the mixture was added water (1.20 L) and the aqueous layer was extracted with CHCl₃ (three times). The combined organic layer was dried over MgSO₄, filtered, and concentrated under reduced pressure. A solution of the above material in EtOAc (650 mL) was cooled on an ice-bath and

4 M hydrogen chloride in EtOAc (325 mL) was added. The mixture was stirred at ambient temperature for 16 hr and concentrated under reduced pressure. The residue was dissolved in 1 M aqueous NaOH (300 mL) and the aqueous layer was extracted with CHCl₃ (three time). The combined organic layer was dried over MgSO₄, filtered, concentrated under reduced pressure, and dried under reduced pressure to give *N*-(*cis*-4-amino-cyclohexyl)-3-chloro-4-fluoro-benzamide (44.4)

ESI MS m/e 271, M (free) + H⁺; 1 H NMR (300 MHz, CDCl₃) δ 1.37-1.92 (m, 8 H), 2.94-3.08 (m, 1 H), 4.06-4.22 (m, 1 H), 6.13-6.31 (m, 1 H), 7.19 (t, J= 8.5 Hz, 1 H), 7.61-7.70 (m, 1 H), 7.79-7.87 (m, 1 H).

20 Step B: Synthesis of 3-chloro-*N*-[*cis*-4-(4-dimethylamino-5-methyl-pyrimidin-2-ylamino)-cyclohexyl]-4-fluoro-benzamide hydrochloride.

To a solution of N-(cis-4-amino-cyclohexyl)-3-chloro-4-fluoro-benzamide (432 mg) in BuOH (1 mL) was added 2-chloro-4-dimethylamino-5-methylpyrimidine obtained in step A of example 3119 (250 mg). The mixture was heated in a microwave synthesizer at 200°C for 10 min. To the mixture was added saturated aqueous NaHCO₃ and the aqueous layer was extracted with CHCl₃ (three times). The combined organic layer was dried over MgSO₄, filtrated, concentrated under reduced pressure, and purified by medium-pressure liquid chromatography (NH-silica gel, 20% to 50% EtOAc in hexane) to give a pale yellow oil. To a solution of the above material in EtOAc (10 mL) was added

4 M hydrogen chloride in EtOAc (0.2 mL). The mixture was stirred at ambient temperature for 1 hr and concentrated under reduced pressure. A suspension of the above material in Et₂O (20 mL) was stirred at ambient temperature for 4 hr. The precipitate was collected by filtration, washed with Et₂O, and dried under reduced pressure to give 3-chloro-N-[cis-4-(4-dimethylamino-5-methyl-pyrimidin-

5 2-ylamino)-cyclohexyl]-4-fluoro-benzamide hydrochloride (174 mg) as a white solid.
ESI MS m/e 406, M (free) + H⁺; ¹H NMR (300 MHz, CDCl₃) δ 1.61-2.02 (m, 8 H), 2.25 (s, 3 H), 3.30 (s, 6 H), 4.02-4.26 (m, 2 H), 6.81-6.93 (m, 1 H), 7.13-7.27 (m, 2 H), 7.70-7.78 (m, 1 H), 7.93-8.00 (m, 1 H), 8.50-8.63 (m, 1 H), 12.68-12.85 (m, 1 H).

10

Example 3229

3-Chloro-*N*-[*cis*-4-(4-dimethylamino-5-fluoro-pyrimidin-2-ylamino)-cyclohexyl]-4-fluoro-benzamide hydrochloride

15 Step A: Synthesis of 3-chloro-N-[cis-4-(4-dimethylamino-5-fluoro-pyrimidin-2-ylamino)-cyclohexyl]-4-fluoro-benzamide hydrochloride.

Using the procedure for the step B of example 3228, the title compound was obtained.

ESI MS m/e 410, M (free) + H⁺; 1 H NMR (300 MHz, CDCl₃) δ 1.64-2.03 (m, 8 H), 3.36 (s, 6 H), 20 4.00-4.23 (m, 2 H), 6.73-6.84 (m, 1 H), 7.18 (t, J = 8.6 Hz, 1 H), 7.45 (d, J = 7.6 Hz, 1 H), 7.67-7.76 (m, 1 H), 7.95 (dd, J = 7.0, 2.2 Hz, 1 H), 8.64-8.78 (m, 1 H).

Example 3230

25 3-Chloro-N-[cis-4-(4-dimethylamino-6-methyl-pyrimidin-2-ylamino)-cyclohexyl]-4-fluoro-benzamide hydrochloride

Step A: Synthesis of 3-chloro-N-[cis-4-(4-dimethylamino-6-methyl-pyrimidin-2-ylamino)-

743

cyclohexyl]-4-fluoro-benzamide hydrochloride.

Using the procedure for the step B of example 3228, the title compound was obtained.

ESI MS m/e 406, M (free) + H⁺; 1 H NMR (300 MHz, CDCl₃) δ 1.62-2.04 (m, 8 H), 2.36 (s, 3 H), 3.15 (s, 3 H), 3.27 (s, 3 H), 4.01-4.31 (m, 2 H), 5.76 (s, 1 H), 6.73-6.84 (m, 1 H), 7.19 (t, J= 8.6 Hz, 1 H), 7.68-7.79 (m, 1 H), 7.97 (dd, J= 6.9, 2.2 Hz, 1 H), 8.50-8.63 (m, 1 H), 12.94-13.16 (m, 1 H).

Example 3231

10 N-[cis-4-(4-Dimethylamino-6-ethyl-pyrimidin-2-ylamino)-cyclohexyl]-3,4-difluorobenzamide hydrochloride

Step A: Synthesis of (2,6-Dichloro-pyrimidin-4-yl)-dimethyl-amine.

To the solution of 2,4,6-trichloro-pyrimidine (10.0 g) in THF (50 mL) were added 50% aqueous Me₂NH (4.92 g) and iPr₂NEt (8.46 g). The mixture was stirred at ambient temperature for 1.5 hr and concentrated under reduced pressure. To the residue was added saturated aqueous NaHCO₃ and the aqueous layer was extracted with CHCl₃ (three times). The combined organic layer was dried over MgSO₄, filtered, concentrated under reduced pressure, and purified flash chromatography (NH-silica gel, 3% EtOAc in hexane) to give

20 (2,6-dichloro-pyrimidin-4-yl)-dimethyl-amine (6.03 g) as white solid.

ESI MS m/e 192, M⁺; ¹H NMR (300 MHz, CDCl₃) δ 2.77-3.46 (m, 6 H), 6.34 (s, 1 H).

Step B: Synthesis of (2-chloro-6-ethyl-pyrimidin-4-yl)-dimethyl-amine.

A solution of ZnBr₂ (3.87 g) in THF (60 mL) was cooled to -60°C and 1 M EtMgBr in THF (17.2 mL) was added. The mixture was stirred at -60°C for 1 hr and warmed to ambient temperature. To the mixture was added (2,6-dichloro-pyrimidin-4-yl)-dimethyl-amine in THF (60 mL) and stirred at reflux for 5 days. To the mixture was added saturated aqueous NH₄Cl and the aqueous layer was extracted with CHCl₃ (three times). The combined organic layer was dried over MgSO₄, filtered,

concentrated under reduced pressure, and purified by medium-pressure liquid chromatography (silica gel, 17% to 33% EtOAc in hexane) to give (2-chloro-6-ethyl-pyrimidin-4-yl)-dimethyl-amine (352 mg) as pale yellow solid and (6-chloro-2-ethyl-pyrimidin-4-yl)-dimethyl-amine (622 mg) as pale yellow solid.

5 (2-chloro-6-ethyl-pyrimidin-4-yl)-dimethyl-amine;

ESI MS m/e 208, M (free) + Na⁺; ¹H NMR (300 MHz, CDCl₃) δ 1.25 (t, J= 7.6 Hz, 3 H), 2.54-2.66 (m, 2 H), 3.11 (s, 6 H), 6.15 (s, 1 H).

(6-chloro-2-ethyl-pyrimidin-4-yl)-dimethyl-amine;

ESI MS m/e 186, M + H⁺; ¹H NMR (300 MHz, CDCl₃) δ 1.29 (t, J = 7.6 Hz, 3 H), 2.74 (q, J = 7.7 10 Hz, 2 H), 3.10 (s, 6 H), 6.24 (s, 1 H).

Step C: Synthesis of N-[cis-4-(4-dimethylamino-6-ethyl-pyrimidin-2-ylamino)-cyclohexyl]-3,4-difluoro-benzamide hydrochloride

Using the procedure for the step B of example 3225, the title compound was

TSI MS m/o 426 M (from 1 No⁺, lin

ESI MS m/e 426, M (free) + Na^{+} ; ^{1}H NMR (300 MHz, CDCl₃) δ 1.29-1.44 (m, 3 H), 1.58-2.19 (m,

8 H), 2.54 - 2.77 (m, 2 H), 3.15 (s, 3 H), 3.26 (s, 3 H), 3.98 - 4.34 (m, 2 H), 5.74 (s, 1 H), 6.41 - 6.63 (m, 2 H), 5.74 (s, 1 H), 6.41 - 6.63 (m, 2 H), 6.41 -

1 H), 7.08-7.32 (m, 1 H), 7.46-7.81 (m, 2 H), 8.58-8.81 (m, 1 H), 12.83-13.09 (m, 1 H).

20

15 obtained.

Example 3232

N-[cis-4-(4,6-Bis-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-3,4-difluoro-benzamide hydrochloride

25 Step A: Synthesis of 2-chloro-N,N,N',N'-tetramethyl-pyrimidine-4,6-diamine.

To the solution of (2,6-dichloro-pyrimidin-4-yl)-dimethyl-amine obtained in step A of example 3231 (1.60 g) in THF (2 mL) was added 50% aqueous Me₂NH (789 mg). The mixture was stirred at reflux for 3.5 hr in a sealed tube. To the residue was added saturated aqueous NaHCO₃ and

the aqueous layer was extracted with CHCl₃ (three times). The combined organic layer was dried over MgSO₄, filtered, concentrated under reduced pressure, and purified by medium-pressure liquid chromatography (silica gel, 20% EtOAc in hexane) to give 2-chloro-*N*,*N*,*N*,*N*,-tetramethyl-pyrimidine-4,6-diamine (203 mg) as a pale brown solid and 6-chloro-*N*,*N*,*N*,*N*,-tetramethyl-

5 pyrimidine-2,4-diamine (1.43 g) as a pale yellow solid.

2-chloro-N,N,N,N-tetramethyl-pyrimidine-4,6-diamine;

ESI MS m/e 201, M (free) + H^+ ; ¹H NMR (300 MHz, CDCl₃) δ 3.05 (s, 12 H), 5.15 (s, 1 H). 6-chloro-N, N, N-tetramethyl-pyrimidine-2,4-diamine;

ESI MS m/e 201, M + H⁺; 1 H NMR (300 MHz, CDCl₃) δ 3.04 (s, 6 H), 3.13 (s, 6 H), 5.76 (s, 1 H).

10

Step B: Synthesis of *N*-[*cis*-4-(4,6-bis-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-3,4-difluoro-benzamide hydrochloride.

Using the procedure for the step B of example 3225, the title compound was obtained.

15 ESI MS m/e 441, M (free) + Na⁺; ¹H NMR (300 MHz, CDCl₃) δ 1.61-2.09 (m, 8 H), 2.96-3.38 (m, 12 H), 4.00-4.31 (m, 2 H), 4.73 (s, 1 H), 6.65-6.82 (m, 1 H), 7.13-7.25 (m, 1 H), 7.55-7.63 (m, 1 H), 7.68-7.78 (m, 1 H), 8.70-8.82 (m, 1 H), 11.79-11.99 (m, 1 H).

20 Example 3233

N-[cis-4-(6-Chloro-4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-2-phenoxy-nicotinamide hydrochloride

Step A: Synthesis of N-[cis-4-(6-chloro-4-dimethylamino-pyrimidin-2-

25 ylamino)-cyclohexyl]-2-phenoxy-nicotinamide hydrochloride.

Using the procedure for the step B of example 3032, the title compound was obtained.

ESI MS m/e 489, M (free) + Na $^+$; ¹H NMR (300 MHz, CDCl₃) δ 1.52-2.10 (m, 8 H), 2.96-3.38 (m,

746

6 H), 4.02-4.29 (m, 2 H), 5.82-6.03 (m, 1 H), 7.04-7.55 (m, 6 H), 7.80-8.01 (m, 1 H), 8.15-8.28 (m, 1 H), 8.47-8.61 (m, 1 H).

5 Example 3234

N-[cis-4-(6-Chloro-4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-3,4-difluoro-benzamide hydrochloride

Step A: Synthesis of *N*-[*cis*-4-(6-chloro-4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]
10 3,4-difluoro-benzamide hydrochloride.

Using the procedure for the step B of example 3225, the title compound was obtained.

ESI MS m/e 432, M (free) + Na⁺; ¹H NMR (300 MHz, CDCl₃) δ 1.63-2.05 (m, 8 H), 3.04-3.37 (m, 6 H), 4.02-4.37 (m, 2 H), 5.88-6.03 (m, 1 H), 6.56-6.86 (m, 1 H), 7.14-7.27 (m, 1 H), 7.51-7.63 (m, 1 H), 7.66-7.82 (m, 1 H), 8.85-9.02 (m, 1 H).

Example 3235

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 $N\hbox{-}[{\it cis}\hbox{-}4\hbox{-}(4\hbox{-}{\bf Amino}\hbox{-}{\bf quinolin-2-ylamino})\hbox{-}{\bf cyclohexyl}]\hbox{-}3,4\hbox{-}difluoro\hbox{-}{\bf benzamide}\ hydrochloride$

Step A: Synthesis of 2-chloro-quinolin-4-ylamine.

To the solution of 2,4-dichloro-quinoline obtained in step A of example 1 (4.00 g) in IPA (40 mL) was added 28% aqueous NH₃ (40.0 mL). The mixture was stirred at reflux for 10 days in a sealed tube. To the residue was added saturated aqueous NaHCO₃ and the aqueous layer was extracted with CHCl₃ (three times). The combined organic layer was dried over MgSO₄, filtered, concentrated under reduced pressure, and purified by medium-pressure liquid chromatography (silica gel, 9% to 17% EtOAc in hexane) to give 2-chloro-quinolin-4-ylamine (1.39 g) as a white solid and 4-chloro-quinolin-2-ylamine (1.17 g) as a white solid.

747

2-chloro-quinolin-4-ylamine;

ESI MS m/e 178, M⁺; ¹H NMR (200 MHz, CDCl₃) 8 4.69-4.97 (m, 2 H), 6.61 (s, 1 H), 7.37-7.78 (m, 3 H), 7.84-8.02 (m, 1 H).

4-chloro-quinolin-2-ylamine

5 ESI MS m/e 178, M⁺; ¹H NMR (300 MHz, CDCl₃) δ 4.58-4.96 (m, 2 H), 6.85 (s, 1 H), 7.23-7.41 (m, 1 H), 7.53-7.72 (m, 2 H), 7.98-8.09 (m, 1 H).

Step B: Synthesis of N-[cis-4-(4-amino-quinolin-2-ylamino)-cyclohexyl]-3,4-difluoro-benzamide hydrochloride.

Using the procedure for the step B of example 3225, the title compound was obtained.

ESI MS m/e 397, M (free) + H⁺; ¹H NMR (300 MHz, CDCl₃) δ 1.29-2.15 (m, 8 H), 3.75-3.90 (m, 1 H) 4.05,4.26 (m, 1 H), 5.44-5.59 (m, 2 H), 5.89 (s, 1 H), 6.99-7.43 (m, 3 H), 7.55-7.84 (m, 5 H), 8.81-8.98 (m, 1 H).

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Example 3236

2-(cis-4-{[1-(3,4-Difluoro-phenyl)-methanoyl]-amino}-cyclohexylamino)-quinoline-4-carboxylic acid amide

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Step A: Synthesis of 2-chloro-quinoline-4-carboxylic acid amide.

To a solution of 2-chloro-quinoline-4-carboxylic acid (3.00 g) in DMF (30 mL) were added 28% aqueous NH₃ (1.05 g), Et₃N (5.04 mL), HOBt-H₂O (3.32 g), and EDC-HCl (3.32 g). The reaction mixture was stirred at ambient temperature for 16 hr. To the reaction mixture was added water (20 mL) and the aqueous layer extracted with CHCl₃ (three times). The combined organic layer was dried over MgSO₄, filtered, concentrated under reduced pressure, purified by medium-pressure liquid chromatography (NH-silica gel, 20% to 50% EtOAc in hexane) to give 2-chloro-quinoline-4-carboxylic acid amide (1.77 g) as a white solid.

ESI MS m/e 207, M (free) + H⁺; ¹H NMR (300 MHz, DMSO-d₆) δ 7.65 (s, 1 H), 7.68-7.77 (m, 1 H), 7.83-7.93 (m, 1 H), 7.98-8.09 (m, 2 H), 8.18-8.25 (m, 1 H), 8.30-8.40 (m, 1 H).

Step B: Synthesis of 2-(cis-4-{[1-(3,4-difluoro-phenyl)-methanoyl]-amino}-cyclohexylamino)5 quinoline-4-carboxylic acid amide.

A mixture of 2-chloro-quinoline-4-carboxylic acid amide (300 mg) and N-(cis-4-amino-cyclohexyl)-3,4-difluoro-benzamide obtained in step A of example 3031 (406 mg) in butanol (1 mL) and DMSO (1 mL) was stirred at reflux for 24 hr. The reaction mixture was poured into saturated aqueous NaHCO₃ and the aqueous layer was extracted with CHCl₃ (three times). The combined organic layer was dried over MgSO₄, filtered, concentrated under reduced pressure, purified by medium-pressure liquid chromatography (NH-silica gel, EtOAc), and concentrated under reduced pressure. The above material was washed with and dried under reduced pressure to give 2-(cis-4-{[1-(3,4-difluoro-phenyl)-methanoyl]-amino}-cyclohexylamino)-quinoline-4-carboxylic acid amide (136 mg) as a white solid.

15 ESI MS m/e 447, M (free) + Na⁺; ¹H NMR (300 MHz, DMSO-d₆) δ 1.61-2.03 (m, 8 H), 3.78-3.93 (m, 1 H), 4.05-4.20 (m, 1 H), 6.89 (s, 1 H), 6.99-7.07 (m, 1 H), 7.11-7.21 (m, 1 H), 7.42-7.61 (m, 3 H), 7.65-7.82 (m, 3 H), 7.88-7.99 (m, 1 H), 8.02-8.10 (m, 1 H), 8.28-8.36 (m, 1 H).

20 Example 3237

 ${\bf 3,4-Difluoro-} N-[{\it cis-4-(4-trifluoromethyl-quinolin-2-yl})-amino-cyclohexyl]-benzamide hydrochloride$

Step A: Synthesis of 3,4-difluoro-N-[cis-4-(4-trifluoromethyl-quinolin-2-yl)-amino-cyclohexyl]
benzamide hydrochloride.

Using the procedure for the step B of example 3225, the title compound was obtained.

ESI MS m/e 472, M (free) + Na^+ ; ¹H NMR (300 MHz, CDCl₃) δ 1.80-2.10 (m, 8 H), 3.99-4.28 (m,

2 H), 6.46-6.63 (m, 1 H), 7.12-7.34 (m, 2 H), 7.48-7.63 (m, 2 H), 7.66-7.90 (m, 3 H), 7.94-8.05 (m, 1 H), 10.14-10.35 (m, 1 H).

5 Example 3238

3,4-Difluoro-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide methanesulfonic acid

Step A: Synthesis of 3,4-difluoro-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]
10 benzamide methanesulfonic acid.

To a solution of *N*-(*cis*-4-methyl-quinolin-2-yl)-cyclohexane-1,4-diamine obtained in step A of example 3070 (3.00 g) in CHCl₃ (30 mL) were added Et₃N (3.40 mL) and 3,4-difluoro-benzoyl chloride (2.28 g). The mixture was stirred at ambient temperature for 6 hr. To the mixture was added saturated aqueous NaHCO₃ and the aqueous layer was extracted with CHCl₃ (three times). The combined organic layer was dried over MgSO₄, filtered, concentrated under reduced pressure, and purified by medium-pressure liquid chromatography (NH-silica gel, 20% to 33% EtOAc in hexane and silica gel, 2% to 5% MeOH in CHCl₃) to give 3,4-difluoro-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide (3.52 g) as colorless solid. To a solution of 3,4-difluoro-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide (700 mg) in EtOH (7 mL) was added MsOH (179 mg). The mixture was stirred at ambient temperature for 3 hr. The precipitate was collected by filtration, washed with EtOH, and dried at 70 °C under reduced pressure to give 3,4-difluoro-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide methanesulfonic acid (769 mg) as a white solid.

ESI MS m/e 396, M (free) + H⁺; ¹H NMR (300 MHz, DMSO-d₆) δ 1.69-2.01 (m, 8 H), 2.42 (s, 3 H), 2.62 (brs, 3 H), 3.90-4.21 (m, 2 H), 7.02-7.13 (m, 1 H), 7.47-7.61 (m, 2 H), 7.75-8.04 (m, 5 H), 8.35, (d, J = 6.4 Hz, 1 H), 9.15-9.42 (m, 1 H), 12.27-12.51 (m, 1 H).

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Example 3239

 $\hbox{3-Chloro-4-fluoro-$N-$[\it cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide \\ . \\ methanesulfonic acid$

5 Step A: Synthesis of 3-chloro-4-fluoro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide methanesulfonic acid.

To a solution of 3-chloro-4-fluoro-benzoic acid (2.26 g) and N-(cis-4-methyl-quinolin-2-yl)-cyclohexane-1,4-diamine obtained in step A of example 3070 (3.00 g) in DMF (30 mL) were added Et₃N (3.93 mL), HOBt-H₂O (2.70 g), and EDC-HCl (2.47 g). The reaction mixture was stirred at ambient temperature for 6 hr. To the reaction mixture was added water (200 mL) and the suspension was stirred at ambient temperature for 30 min. The precipitated was collected by filtration, washed with H₂O, and purified by medium-pressure liquid chromatography (NH-silica gel, 20% to 33% EtOAc in hexane) to give 3-chloro-4-fluoro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide (4.40 g) as a colorless solid. To a solution of 3-chloro-4-fluoro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide (800 mg) in EtOH (8 mL) was added MsOH (196 mg). The mixture was stirred at ambient temperature for 4 hr. The precipitate was collected by filtration, washed with EtOH, and dried at 80 °C under reduced pressure to give 3-chloro-4-fluoro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide methanesulfonic acid (845 mg) as a white solid.

20 ESI MS m/e 434, M (free) + Na⁺; ¹H NMR (300 MHz, DMSO-d₆) δ 1.66-1.99 (m, 8 H), 2.38 (s, 3 H), 2.56-2.73 (m, 3 H), 3.87-4.21 (m, 2 H), 6.99-7.14 (m, 1 H) 7.48-7.58 (m, 2 H), 7.74-7.84 (m, 1 H), 7.87-8.05 (m, 3 H), 8.12 (dd, J= 7.2, 2.2 Hz, 1 H), 8.36-8.41 (m, 1 H), 9.14-9.39 (m, 1 H), 12.28-12.55 (m, 1 H).

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Example 3240

3-Methoxy-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-benzamide methanesulfonic acid

751

Step A: Synthesis of 3-methoxy-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-benzamide methanesulfonic acid.

To a solution of *cis-N*-quinolin-2-yl-cyclohexane-1,4-diamine obtained in step A of example 3033 (4.00 g) in CHCl₃ (40 mL) were added Et₃N (4.85 mL) and 3-methoxy-benzoyl chloride (3.10 g). The mixture was stirred at ambient temperature for 6 hr. The reaction was quenched with saturated aqueous NaHCO₃ and the aqueous layer was extracted with CHCl₃ (three times). The combined organic layer was dried over MgSO₄, filtered, concentrated under reduced pressure, and purified by medium-pressure liquid chromatography (NH-silica gel, 20% EtOAc in hexane) to give 3-methoxy-*N*-[*cis*-4-(quinolin-2-ylamino)-cyclohexyl]-benzamide (5.42 g) as colorless solid. To a solution of 3-methoxy-*N*-[*cis*-4-(quinolin-2-ylamino)-cyclohexyl]-benzamide (700 mg) in EtOH (7 mL) was added MsOH (188 mg). The mixture was stirred at ambient temperature for 24 hr. The precipitate was collected by filtration, washed with EtOH, and dried at 80 °C under reduced pressure to give 3-methoxy-*N*-[*cis*-4-(quinolin-2-ylamino)-cyclohexyl]-benzamide methanesulfonic acid (741 mg) as a white solid.

15 ESI MS m/e 398, M (free) + Na⁺; ¹H NMR (300 MHz, DMSO-d₆) δ 1.70-1.99 (m, 8 H), 2.35 (s, 3 H), 3.81 (s, 3 H) 3.90-4.04 (m, 1 H), 4.08-4.22 (m, 1 H), 7.06-7.26 (m, 2 H), 7.32-7.56 (m, 4 H), 7.73-8.02 (m, 3 H), 8.17-8.38 (m, 2 H), 12.41-12.58 (m, 1 H).

752

Example 3241

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N-{cis-4-[(4-Amino-5-methylpyrimidin-2-yl)amino]cyclohexyl}-3,5-bis(trifluoromethyl)benzamide hydrochloride

5 Step A: Synthesis of 2-chloro-5-methyl-pyrimidin-4-ylamine.

A solution of 2,4-dichloro-5-methyl-pyrimidine (4.1 g, 0.025 mol) was dissolved in THF (30 mL) and cooled with stirring on an ice bath. To the mixture was added 7 N NH₃ in MeOH (14.4 mL, 0.10 mol) and stirring was continued overnight (in which time the ice melted and the reaction warmed to room temperature). The excess solvent was removed in vacuo and the precipitate was suspended in CH₂Cl₂ (20 mL). The organic layer was extracted with a NaHCO₃ (aq) solution (20 mL) and both layers of the extraction were filtered to collect the resulting insoluble precipitate. This precipitate was washed with cold H₂O and dried to yield 2-chloro-5-methyl-pyrimidin-4-ylamine (1.0 g, 0.0070 mol, 27 %) as a white solid.

ESI-MS m/e 144.2 M+H $^{+}$; ¹H NMR (400 MHz, DMSO-d₆) δ 7.80 (s, 1H), 7.22 (bs, 2H), 1.93 (s, 3H).

Step B: Synthesis of N-{cis-4-[(4-amino-5-methylpyrimidin-2-yl)amino]cyclohexyl}-3,5-bis(trifluoromethyl)benzamide hydrochloride.

To a solution of 2-chloro-5-methyl-pyrimidin-4-ylamine (292 mg, 2.03 mmol) in 2 mL 2-propanol was added DIEA (531 uL, 3.05 mmol) and *cis-N*-(4-amino-cyclohexyl)-3,5-

- 20 bis(trifluoromethyl)-benzamide (720 mg, 2.03 mmol). The mixture was then heated in a microwave at 170 °C for 1 hour. The reaction mixture was cooled and concentrated and the resulting oil was purified by column (0-5 % MeOH in CH₂Cl₂). The organic solvents were evaporated and the resulting oil was re-dissolved into 4 mL CH₂Cl₂ and 2M HCl in Et₂O (2.0 mL, 4.0 mmol) was added. The reaction was stirred for 30 minutes and the solvent was removed. A precipitate formed that was subsequently
- 25 filtered and washed with a cold 50% ether in hexanes solution to yield N-{cis-4-[(4-amino-5-

753

methylpyrimidin-2-yl)amino]cyclohexyl}-3,5-bis(trifluoromethyl)benzamide hydrochloride (500 mg, 1.00 mmol, 49%) as a HCl salt.

ESI-MS m/e 462.2 M+H⁺; ¹H NMR (400 MHz, DMSO-d₆) δ 11.86 (s, 1H), 8.79 (s, 1H), 8.51 (s, 1H), 8.39 (s, 1H), 8.31 (s, 1H), 8.01 (s, 1H), 7.85 (s, 1H), 7.66 (s, 1H), 3.90 (bs, 2H), 1.90 (s, 3H), 1.89-1.61 (m, 8H).

Example 3242

2-[(cis-4-{[4-(Dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)amino]-1-[4-10 (trifluoromethoxy)phenyl]ethanone trifluoroacetate

Step A: Synthesis of 2-[(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)amino]-1-[4-(trifluoromethoxy)phenyl]ethanone trifluoroacetate.

To a solution of *cis*-4-(4-dimethylamino-5-methyl-pyrimidin-2-ylamino)-1-cyclohexylamine
15 (37 mg, 0.14 mmol) and 4-trifluoromethoxy bromoacetophenone (42 mg, 0.14 mmol) in THF (2 mL)
was added DIEA (20 μL). The reaction was stirred for 2 h at 65 °C, concentrated, dissolved in DMSO
(1 mL), and purified by prep-HPLC to give 2-[(*cis*-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)amino]-1-[4-(trifluoromethoxy)phenyl]ethanone trifluoroacetate 24 mg (30 %) as a white powder.

20 ESI-MS m/e 452 (M + H)⁺; 1 H NMR (400 MHz, CDCl₃) δ 8.28 (bs, 2 H), 8.09 (d, 2 H, J = 8.8 Hz), 7.29 (m, 2 H), 7.20 (m, 1 H), 4.13 (bs, 1 H), 3.45 (bs, 1 H), 3.33 (s, 6 H), 3.27 (bm, 2 H), 2.28 (s, 3 H), 2.02-1.71 (m, 8 H).

25 Example 3243

754

 $N-\{1-[3,5-\text{Bis}(\text{trifluoromethyl})\text{phenyl}]-1-\text{methylethyl}\}-N'-(\text{cis-4-}\{[4-(\text{dimethylamino})-5-\text{methylpyrimidin-2-yl}]\text{amino}\}$ cyclohexyl)urea trifluoroacetate

Step A: Synthesis of N-{1-[3,5-bis(trifluoromethyl)phenyl]-1-methylethyl}- \mathbb{N} '-(cis-4-{[4-5 (dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)urea trifluoroacetate.

To a solution of 2-(3,5-bistrifluoromethyl-phenyl)-2-methyl propionic acid (0.4 g, 1.3 mmol) and Et₃N (0.17 mL, 1.3 mmol) in dry benzene (4 mL) was added diphenylphosphoryl azide (0.36 g, 1.3 mmol). During the reaction being refluxed for about 3 h, 3,5-bistrifluoromethyl-4-(isocyanato-1-methyl-ethyl)-benzene was formed as the reaction intermediate, which was directly used to prepare urea derivatives.

To a solution of *cis*-4-(4-dimethylamino-5-methyl-pyrimidin-2-ylamino)-1-aminocyclohexane (40 mg, 0.16 mmol) in EtOH (1 mL) was added 3,5-bistrifluoromethyl-4-(isocyanato-1-methyl-ethyl)-benzene (48 mg, 0.16 mmol) from the above reaction. The reaction mixture was stirred at 60 °C for 1 h, and completed consumption of the starting material was observed by LC-MS. After removal of the volatile solvent, the residue was dissolved in DMSO (1.5 mL) and purified by prep-HPLC to give 35 mg (35 %) of *N*-{1-[3,5-bis(trifluoromethyl) phenyl]-1-methylethyl}-N'-(*cis*-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino} cyclohexyl)urea trifluoroacetate.

ESI-MS m/e 547 (M + H)⁺; ¹H NMR (400 MHz, CDCl₃) δ 13.4 (bs, 1 H), 8.37 (bd, 1 H, *J* = 6.4 Hz), 7.84 (s, 3 H), 7.71 (s, 1 H), 5,56 (bs, 1 H), 4.01 (bs, 1 H), 3.75 (m, 1 H), 3.29 (s, 6 H), 2.25 (s, 3 H), 2.01 (s, 1 H).

Example 3244

 $N-\{1-[3,5-Bis(trifluoromethyl)phenyl]-1-methylethyl\}-N'-(cis-4-\{[4-(dimethylamino)-5-inserthylethyl]-1-methylethyl\}-N'-(cis-4-[4-(dimethylamino)-5-inserthylethyl]-1-methylethyl]-N'-(cis-4-[4-(dimethylamino)-5-inserthylethyl]-1-methylethyl]-N'-(cis-4-[4-(dimethylamino)-5-inserthylethyl]-1-methylethyl]-N'-(cis-4-[4-(dimethylamino)-5-inserthylethyl]-1-methylethyl]-N'-(cis-4-[4-(dimethylamino)-5-inserthylethyl]-1-methylethyl]-1-methylethyl]-1-methylethyl]-1-methylethyl]-1-methylethyl]-1-methylethyl]-1-methylethyl]-1-methylethyl]-1-methylethyl]-1-methylethyl]-1-methylethyl]-1-methylethyl]-1-methylethyl]-1-methylethyl]-1-methylethyl]-1-methylethyl]-1-methylethyl]-1-methylethyl]-1-methylethyl]-1-methylethyl]-1-methylethyl]-1-methylethyl]-1-methylethyl]-1-methylethyl]-1-methylethyl]-1-methylethyl]-1-methylethyl]-1-methylethyl]-1-methylethyl]-1-methylethyl]-1-methylethyl]-1-methylethyl]-1-methylethyl]-1-methylethyl]-1-methylethyl]-1-methylethyll[4-methylethyl]-1-methylethyll[4-methylethyll]-1-methylethyll[4-methylethyll]-1-methylethyll[4-methylethyll]-1-methylethyll[4-methyll]-1-methylethyll[4-methyll]-1-methylethyll[4-methyll]-1-methyll[4-methyll]-1-methyll[4-methyll]-1-methyll[4-methyll]-1-methyll[4-methyll]-1-methyll[4-methyll]-1-methyll[4-methyll]-1-methyll[4-methyll]-1-methyll[4-methyll]-1-methyll[4-methyll]-1-methyll[4-methyll]-1-methyll[4-methyll]-1-methyll[4-methyll]-1-methyll[4-methyll]-1-methyll[4-methyll]-1-methyll[4-methyll]-1-methyll[4-methyll]-1-methyll[4-methyll]-1-methyll[4-methyll]-1-methyll[4-methyll]-1-methyll[4-methyll]-1-methyll[4-methyll]-1-methyll[4-methyll]-1-methyll[4-methyll]-1-methyll[4-methyll]-1-methyll[4-methyll]-1-methyll[4-methyll]-1-methyll[4-methyll]-1-methyll[4-methyll]-1-methyll[4-methyll]-1-methyll[4-methyll]-1-methyll[4-methyll]-1-methyll[4-methyll]-1-methyll[4-methyll]-1-methyll[4-methyll]-1-methyll[4-methyll]-1-methyll[4-methyll]-1-methyll[4-methyll]-1-methyll[4-methyll]-1-methyll[4-methyll]-1-methyll[4-methyll]-1-methyll[4-methyll]-1-methyll[4-methyll]-1-methyll[4-methyll]-1-me$

25 methylpyrimidin-2-yl|amino}cyclohexyl)-N-methylurea trifluoroacetate

755

Step A: Synthesis of N-{1-[3,5-bis(trifluoromethyl)phenyl]-1-methylethyl}-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N-methylurea trifluoroacetate.

3,5-Bistrifluoromethyl-4-(isocyanato-1-methyl-ethyl)-benzene (36 mg, 0.12 mmol) was added to a solution of *cis*-4-(4-dimethylamino-5-methyl-pyrimidin-2-ylamino)-1-aminocyclohexane (30 mg, 0.12 mmol) and CH₃I (0.17 g, 1.2 mmol) in anhydrous benzene (1 mL) under an inert atmosphere. The reaction mixture was stirred at 50 °C for 2 h, and formation of the methylated and protonated products were observed by LC-MS. After removal of the volatile solvent, the residue was dissolved in DMSO (1.5 mL) and purified by prep-HPLC. 20 mg (25 %) of N-{1-[3,5-bis(trifluoromethyl)phenyl]-1-methylethyl}-N-(cis-4-{[4-(dimethyl amino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N-10 methylurea trifluoroacetate was isolated as a white powder.

ESI-MS m/e 561 (M + H)⁺; 1 H NMR (400 MHz, CDCl₃) δ 14.5 (bs, 1 H), 9.19 (bd, 1 H, J = 6.0 Hz), 7.84 (s, 2 H), 7.79 (s, 1 H), 7.70 (s, 1 H), 4.87 (s, 1 H), 4.23 (bs, 1 H), 4.14 (m, 1 H), 3.26 (s, 6 H), 2.98 (s, 3 H), 2.23 (s, 3 H), 1.75-1.65 (m, 14 H).

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Example 3245

cis-N-{1-[3,5-Bis(trifluoromethyl)phenyl]-1-methylethyl}-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexanecarboxamide trifluoroacetate

20 Step A: Synthesis of 1-(3,5-bistrifluoromethyl-phenyl)-1-methyl-ethylamine.

3,5-Bistrifluoromethyl-4-(isocyanato-1-methyl-ethyl)-benzene (0.1 g, 0.33 mmol) was treated with 8-N HCl (4 mL). The acidic aqueous solution was heated for 1 h at 60 °C. After cooling the reaction, NaOH pellets were added to make the aqueous mixture alkaline. The solid precipitates were filtered off, and the basic aqueous was extracted with DCM (2x). The combined organic was washed with H₂O, dried, and concentrated to give 1-(3,5-bistrifluoromethyl-phenyl)-1-methyl-ethylamine: 1-

756

(3,5-bistrifluoromethyl-phenyl)-1-methyl-ethylamine appeared to be unstable in neat. The product was kept in DCM solution.

ESI-MS m/e 272 $(M + H)^{+}$

5 Step B: Synthesis of *cis-N*-{1-[3,5-bis(trifluoromethyl)phenyl]-1-methylethyl}-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexanecarboxamide trifluoroacetate.

To a solution of *cis*-4-(4-dimethylamino-5-methyl-pyrimidin-2-ylamino)cyclohexanecarboxylic acid (15 mg, 0.05 mmol) and 1-(3,5-bistrifluoromethyl-phenyl)-1-methylethylamine (15 mg, 0.05 mmol) in DCM (1.5 mL) was added HATU (25 mg, 0.06 mmol) and followed
by Et₃N (10 mg, 0.1mmol). After 4h stirring at room temperature, the reaction was concentrated,
dissolved in DMSO (1.5 mL), and purified by prep-HPLC to give 11 mg (30 %) of *cis-N*-{1-[3,5bis(trifluoromethyl)phenyl]-1-methylethyl}-4-{[4-(dimethylamino)-5-methylpyrimidin-2yl]amino}cyclohexanecarboxamide trifluoroacetate.
ESI-MS m/e 532 (M + H)⁺; ¹H NMR (400 MHz, CDCl₃) δ 14.6 (bs, 1 H), 8.64 (bd, 1 H, *J* = 6.0 Hz),

15 7.78 (s, 2 H), 7.69 (s, 1 H), 7.30 (d, 1 H, *J* = 7.2 Hz), 7.16 (s, 1 H), 4.40 (bs, 1 H), 3.30 (s, 6 H), 2.26 (s, 3 H), 2.18 (m, 1 H), 2.07-1.80 (m, 8 H), 1.70 (s, 6 H).

Example 3246

20 3,4-Difluoro-N-{cis-4-[(4-methoxy-5-methylpyrimidin-2-yl)amino]cyclohexyl}benzamide trifluoroacetate

Step A: Synthesis of 2-chloro-4-methoxy-5-methyl pyrimidine.

2,4-dichloro-5-methyl pyrimidine (0.8 g, 5 mmol) was dissolved in MeOH (10 mL), and 0.5

M-NaOCH₃ in MeOH (10 mL, 5 mmol) was slowly added into the solution. The reaction was stirred for 40 min at room temperature, diluted with H₂O, and extracted with DCM (3x). The combined

757

organic was washed with H_2O (2x) and saline (1x), dried, and concentrated. 0.8 g (99 %) of 2-chloro-4-methoxy-5-methyl pyrimidine was isolated, which was directly used for the next reaction without a further purification.

¹H NMR (400 MHz, CDCl₃) δ 8.10 (s, 1 H), 4.03 (s, 3 H), 2.12 (s, 3 H).

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Step B: Synthesis of N-[cis-4-(4-methoxy-5-methyl-pyrimidin-2-ylamino)-cyclohexyl]carbamic acid *tert*-butyl ester.

A sealed tube containing 2-chloro-4-methoxy-5-methyl pyrimidine (0.35 g, 2.2 mmol), *cis*-(4-amino-cyclohexyl)-carbamic acid *tert*-butyl ester (0.56 g, 2.4 mmol), DIEA (0.8 mL, 4.5 mmol), and 10 IPA (2 mL) was reacted for 4000 sec at 175 °C in a Personal Microwave Synthesizer. The reaction was diluted with DCM, washed with 1N-HCl and H₂O, dried, and concentrated. The crude product was purified by column chromatography [silica gel, DCM:MeOH (100:0 to 97:3)]. 0.25 g (34 %) of N-[*cis*-4-(4-methoxy-5-methyl-pyrimidin-2-ylamino)-cyclohexyl] carbamic acid *tert*-butyl ester was isolated.

15 ESI-MS m/e 337 (M + H)⁺; 1 H NMR (400 MHz, CDCl₃) δ 7.80 (s, 1 H), 4.86 (bd, 1 H, J = 6.0 Hz), 4.55 (bs, 1 H), 3.93 (bm, 1 H), 3.89 (s, 3 H), 3.62 (bs, 1 H), 1.97 (s, 3 H), 1.83-1.55 (m, 8 H), 1.45 (s, 9 H).

Step C: Synthesis of cis-4-(4-methoxy-5-methyl-pyrimidin-2-ylamino)-aminocyclohexane.

To a solution of N-[cis-4-(4-methoxy-5-methyl-pyrimidin-2-ylamino)-cyclohexyl] carbamic acid tert-butyl ester (0.24 g, 0.7 mmol) in DCM (10 mL) was added TFA (5 mL). The reaction was stirred for 1.5 h at room temperature. After removal of the volatile solvent, the residue was treated with 4N-NaOH (3 mL). The basic aqueous was extracted with DCM (3x), and combined organic was washed with H₂O (2x) and brine (1x), and concentrated. 0.13 g (82 %) of cis-4-(4-methoxy-5-methyl-pyrimidin-2-ylamino)-aminocyclohexane was isolated as a yellowish solid.

758

ESI-MS m/e 237 (M + H)⁺; ¹H NMR (400 MHz, CDCl₃) δ 7.79 (s, 1 H), 5.05 (bd, 1 H, J = 6.4 Hz), 3.99 (bs, 1 H), 3.89 (s, 3 H), 2.92 (bm, 1 H), 2.45 (bs, 2 H), 1.96 (s, 3 H), 1.83-1.45 (m, 8 H).

Step D: Synthesis of 3,4-difluoro-N-{cis-4-[(4-methoxy-5-methylpyrimidin-2-

5 yl)amino|cyclohexyl}benzamide trifluoroacetate.

To a solution of *cis*-4-(4-methoxy-5-methyl-pyrimidin-2-ylamino)-aminocyclohexane (20 mg, 0.08 mmol) in DCM (1 mL) was added 3,4-difluorobenzoyl chloride (14 mg, 0.08 mmol), and followed by Et₃N (25 μL). The reaction was stirred for 2 h at room temperature, and MeOH (0.2 mL) was added to quench the reaction. After removal of the volatile solvent, the residue was dissolved in DMSO (1.5 mL) and purified by prep-HPLC to give 12 mg (40 %) of 3,4-difluoro-*N*-{*cis*-4-[(4-methoxy-5-methylpyrimidin-2-yl)amino]cyclohexyl} benzamide trifluoroacetate as a white powder. ESI-MS m/e 377 (M + H)⁺; ¹H NMR (400 MHz, CDCl₃) δ 15.7 (bs, 1 H), 9.55 (d, 1 H, *J* = 7.2 Hz), 7.73 (m, 1 H), 7.59 (m, 1 H), 7.57 (s, 1 H), 7.20 (m, 1 H), 6.80 (d, 1 H, *J* = 8.0 Hz), 4.37 (bs, 1 H), 4.18 (bm, 1 H), 4.09 (s, 3 H), 2.04 (s, 3 H), 1.89-1.75 (m, 8 H).

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Example 3247

N-(cis-4-{[4-Methyl-6-(methylamino)pyrimidin-2-yl]amino}cyclohexyl)-4-(trifluoromethoxy)benzamide hydrochloride

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Step A: Synthesis of (2-chloro-6-methyl-pyrimidin-4-yl)-methyl-amine.

2,4-Dichloro-6-methylpyrimidine (10 g, 61.34 mmol) in 50 mL in CH₂Cl₂ was added 2 M methylamine in methyl alcohol (46.01ml, 92.02 mmol) at 0°C. The reaction mixture was stirred overnight and then the excess solvent was evaporated off and the material subjected to chromatography (50% hexanes in ethyl acetate) to yield (2-chloro-6-methyl-pyrimidin-4yl)-methyl-amine (5.835 g, 37.17 mmol, 60.59%) as a white solid.

759

ESI-MS 158.0 M+H⁺; 1 H NMR (400 MHz, DMSO-d₆) δ 7.62 (s, 1H), 6.18 (s, 1H), 2.70 (bs, 3H), 2.10 (bs, 3H).

Step B: Synthesis N-(cis-4-{[4-methyl-6-(methylamino)pyrimidin-2-yl]amino}cyclohexyl)-4-5 (trifluoromethoxy)benzamide hydrochloride.

To a solution of (2-chloro-6-methyl-pyrimidin-4yl)-methyl-amine (500 mg, 3.18 mmol) in 3 mL 2-propanol was added *cis-N*-(4-amino-cyclohexyl)-4-trifluoromethoxy-benzamide (1.25 g, 4.14 mmol) and DIEA (1.108 mL, 6.36 mmol). The mixture was heated in a microwave synthesizer at 180 °C for 2 hours. The solvent was evaporated and obtained compound was dissolved in CH₂Cl₂ and was added 2 M HCl in diethyl ether (6.2 mL) to give *N*-(*cis*-4-{[4-methyl-6-(methylamino)pyrimidin-2-yl]amino}cyclohexyl)-4-(trifluoromethoxy)benzamide hydrochloride (1.3014 g, 2.83 mmol, 89 %) as a yellowish solid.

ESI-MS 424.2 M+H⁺; ¹H NMR (400 MHz, DMSO-d₆) δ 8.72 (s, 1H), 8.44 (s, 1H), 7.99-7.96 (d, *J* = 8 Hz, 2H), 7.86 (s, 1H), 7.47-7.45 (d, *J* = 8 Hz, 2H, 4.03 (s, 1H), 3.87 (s, 1H), 2.89-2.88 (d, *J*=4 Hz, 3H), 1.85 (bs, 2H), 1.72 (bs, 6H).

Example 3248

N-({cis-4-[(4-Amino-5-methylpyrimidin-2-yl)amino]cyclohexyl}methyl)-3,5-

20 bis(trifluoromethyl)benzamide hydrochloride

Step A: Synthesis of N-($\{cis$ -4-[(4-amino-5-methylpyrimidin-2-yl)amino]cyclohexyl $\}$ methyl)-3,5-bis(trifluoromethyl)benzamide hydrochloride.

To a solution of 2-chloro-5-methyl-pyrimidin-4-ylamine (269 mg, 1.87 mmol) in 1 mL 2-25 propanol was added *cis-N*-(4-amino-cyclohexylmethyl)-3,5-bis-trifluoromethyl-benzamide (689.8 mg, 1.87 mmol) and DIEA (489.5.4 µl, 2.81 mmol). The mixture was heated in a microwave synthesizer at

760

180 °C for 2 hours. The solvent was evaporated and the material subjected to chromatography (1-2% methanol/ CH₂Cl₂). The obtained compound was dissolved in CH₂Cl₂ and was added 2 M HCl in diethyl ether (2.2 mL) to give N-({cis-4-[(4-amino-5-methylpyrimidin-2-

yl)amino]cyclohexyl}methyl)-3,5-bis(trifluoromethyl)benzamide hydrochloride (667.1 mg, 1.30 mmol,

5 70%) as a white solid.

ESI-MS 476.2 M+H⁺; ¹H NMR (400 MHz, DMSO-d₆) δ 9.16-9.13 (t, J = 4 Hz, J = 8 Hz, 1H), 8.55 (s, 2H), 8.36-8.31 (bs, 2H), 7.86 (bs, 1H), 7.71 (bs, 1H), 4.07 (bs, 1H), 3.27-3.24 (t, J = 8 Hz, J = 4 Hz, 2H), 1.91 (bs, 3H), 1.73-1.42 (m, 8H).

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Example 3249

 $2-[(2-Chlorophenyl)sulfonyl]-N-(cis-4-\{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino\}cyclohexyl)nicotinamide trifluoroacetate$

15 Step A: Synthesis of *cis*-2-chloro-*N*-[4-(4-dimethylamino-6-methyl-pyrimidin-2ylamino)-cyclohexyl]-nicotinamide.

cis- N^2 -(4-Amino-cyclohexyl)-6, N', N'-trimethyl-pyrimidine-2,4-diamine (2.86 g, 11.5 mmol) in 20 mL CH₂Cl₂ was added 2-chloronicotinoyl chloride (2.02 g, 11.5 mmol), and DIEA (3.9 mL, 23 mmol). The reaction mixture was stirred for an hour. The solvent was evaporated off and the

20 compound was crystallized (2% hexanes in ether) to yield *cis*-2-chloro-*N*-[4-(4-dimethylamino-6-methyl-pyrimidin-2ylamino)-cyclohexyl]-nicotinamide (4.2 g, 10.8 mmol, 94%).

ESI-MS 389.2 M+H⁺; ¹H NMR (400 MHz, DMSO-d₆) δ 13.1 (bs, 1H), 8.72-8.70 (d, J= 8 Hz, 1H), 8.49-8.46 (dt, J= 8 Hz, J= 4 Hz, 1H), 8.04 (s, 1H), 7.89-7.87 (dd, J= 4 Hz, J= 4Hz, 1H), 7.52-7.47 (q, J= 8 Hz, J= 4Hz, 1H), 6.27 (s, 1H), 3.95 (bs, 2H), 3.27 (bs, 6H), 2.31 (s, 3H), 1.82-1.74 (m, 8H).

761

Step B: Synthesis of 2-[(2-chlorophenyl)sulfonyl]-N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)nicotinamide trifluoroacetate.

To a solution of *cis*-2-chloro-*N*-[4-(4-dimethylamino-6-methyl-pyrimidin-2ylamino)-cyclohexyl]-nicotinamide (50 mg, 0.128 mmol) in 1 mL dioxane was added 2-chlorobenzenethiol (37.1 mg, 0.256 mmol), and Cs₂CO₃ (83.4 mg, 0.256 mmol). The mixture was heated in a microwave synthesizer at 180 °C for 1 hour. After the solvent was evaporated, the compound was then subjected to purification by prep HPLC to give *cis*-2-(2-chloro-phenylsulfanyl)-*N*-[4-(4-dimethylamino-6-methyl-pyrimidin-2-ylamino)-cyclohexyl]-nicotinamide trifluoroacetate (23.2 mg, 30 %) as a white solid. ESI-MS m/e 497.4 M+H⁺;

- To a solution of *cis*-2-(2-chloro-phenylsulfanyl)-*N*-[4-(4-dimethylamino-6-methyl-pyrimidin-2-ylamino)-cyclohexyl]-nicotinamide trifluoroacetate (23.2 mg, 0.038 mmol) in 1mL CH₂Cl₂ was added 3-chloroperoxybenzoic acid (31.5 mg 0.14 mmol). The reaction mixture was stirred for 15 h and quenching with NaHCO₃. The solvent was evaporated and compound was then subjected to purification by prep HPLC to give 2-[(2-chlorophenyl)sulfonyl]-*N*-(*cis*-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)nicotinamide trifluoroacetate (8.9 mg, 0.014 mmol, 36%) as a white solid.
- ESI-MS m/e 529.2 M+H⁺; ¹H NMR (400 MHz, DMSO-d₆) δ 11.98 (s, 1H), 8.61-8.59 (m, 2H), 8.24-8.21 (dd, *J* = 4 Hz, 4 Hz, 1H), 8.08-8.06 (d, J= 8Hz, 1H), 7.79-7.74 (m, 2H), 7.71-7.69 (t, *J*= 4Hz, 1H), 7.64-7.62 (d, *J*= 8 Hz, 1H), 7.58 (bs, 1H), 6.32 (s, 1H), 3.94 (bs, 2H), 3.21(s, 3H), 3.15 (s, 3H), 20 2.28 (s, 3H), 1.84-1.78 (m, 8 H).

Example 3250

 $N\hbox{-}({\it cis}\hbox{-}4\hbox{-}\{[(4\hbox{-}Methylquinolin-2\hbox{-}yl)methyl]amino}\} cyclohexyl)\hbox{-}3,5\hbox{-}bis(trifluoromethyl)benzamide$

25 trifluoroacetate

762

Step A: Synthesis of 4-methyl-2-vinyl-quinoline.

To 50 mL toluene in a 150 mL rounded-bottom flask, was added 2-chlorolepidine (1 g, 63 mmol), tetrakis (triphenylphonsine) palladium (0) (65 mg, 0.63 mmol), triphenyl phosphine (0.495 g, 1.89 mmol) and vinyltributyl tin (2.2 g,6.76 mmol). The mixture was refluxed at 116 $^{\circ}$ C under N₂ for 2 hours. The reaction mixture was concentrated and purified by silica gel with 0-10% EtOAc/Hexane to yield 4-methyl-2-vinyl-quinoline (720 mg, 4.26 mmol, 76%). ESI MS m/e: 170.0 M+H⁺; 1 H NMR (400 MHz, CDCl₃) δ 7.96 (d, J= 8 Hz,1H), 7.85 (d, J= 8 Hz, 1H), 7.58 (dd, J₁= J₂= 8 Hz, 1H), 7.43 (dd, J₁= J₂= 8 Hz, 1H), (7.15 (s, 1H), 6.89 (dd, J₁= 16 Hz, J₂= 12 Hz, 1H), 6.15 (d, J= 16 Hz, 1H), 5.54 (d, J= 8 Hz, 1H), 2.60 (s, 3H)

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Step B: Synthesis of 4-methyl-quinoline-2-carbaldehyde.

To a 500 mL rounded bottom flask filled with 40 mL 90% THF/H₂O was added 4-methyl-2-vinyl-quinoline (1.2 g, 7.1 mmol) NMO (1.29 g, 10.65 mmol), and OsO₄ (1.3 mL, 0.21 mmol) under N₂. The mixture was stirred at room temperature overnight under N₂. The reaction mixture was quenched with saturated solution of Na₂S₂O₃, and the organic phase was then extracted EtOAc (100 mL x 4. The organic layer was combined and washed with brine, and concentrated. The crude product, 1-(4-methyl-quinolin-2-yl)-ethane-1,2-diol (1.5 g), was directly used to next Step without further purification.

To 60 mL 90%THF/ H₂O, was added 1.5 g of the crude 1-(4-methyl-quinolin-2-yl)-ethane-1,2-diol and NaIO₄ (1.4 g, 8.86 mmol). The mixture was stirred at room temperature under N₂ for 6 hours. The organic phase was extracted with EtOAc (100 mL x4, combined, and dried by anhydrous MgSO₄. It was concentrated to purify by silica gel column using 0-5% EtOAc /Hexane to yield 4-methyl-quinoline-2-carbaldehyde (600 mg, 3.5 mL, 49.4%).

ESI MS m/e: 172.0 M+H⁺; ¹H NMR (400 MHz, CDCl₃) δ 10.2 (s, 1H), 8.25 (d, J = 8 Hz, 1H), 8.07 (d, 25 J = 8 Hz, 1H), 7.88 (s, 1H), 7.82 (dd, J₁ = J₂ = 8 Hz, 1H), 7.71 (dd, J₁ = J₂ = 8 Hz, 1H), 2.79 (s, 3H).

Step C: Synthesis of resin bound cis-(4-amino cyclohexyl) carbamic acid fluorenylmethyl ester.

In a 30 mL manual synthesis vessel, 2-(3,5 dimethoxy-4-formyl) phenoxy ethyl polystyrene resin (0.5 gram; 0.90 mmol/gram) and *cis*-(4-amino cyclohexyl) carbamic acid fluorenylmethyl ester 2 (453mg, 1.35 mmol) were suspended in 4 mL of DMF. To this suspension was added a solution of NaBH(OAc)₃ (299 mg, 1.35 mmol) in 1% acetic acid/DMF solution (4 mL). After shaking the mixture overnight in a rotary shaker, the solution was removed by filtration and the resin washed sequentially with DMF, 10% DIEA/DMF, DMF, DCM and MeOH. The washing sequence was repeated four times. The resulting resin bound intermediate was dried under vacuum for 20 minutes.

Step D: Synthesis of resin bound-cis -[4- (4- methyl-quinolin-2-methyl-amino)-cyclohexyl]10 carbamic acid flourenylmethyl ester.

To the resin bound intermediate (0.315 mmol) was added 4-methyl-quinoline-2-carbaldehyde (96 mg, 0.564 mmol) in dimethyl acetamide (5 mL) and 1% acetic acid (.050 mL). The resin suspension was mixed in a rotary shaker for 1 hour at room temperature. Sodium cyanoborohydride (195 mg, 3.15 mmol) was added to the resin suspension and the reaction was mixed overnight at room temperature. At the completion of the reaction, the solution was filtered and the resin washed sequentially with DMF, 10%DIEA/DMF, DMF, DCM and MeOH. The washing sequence was repeated four times. The resulting resin bound intermediate 5 was dried under vacuum for 20 minutes

Step E: Synthesis of N-(cis-4-{[(4-methylquinolin-2-yl)methyl]amino}cyclohexyl)-3,5-20 bis(trifluoromethyl) benzamide trifluoroacetate.

The resin bound intermediate (0.171 mmol) was treated with 20% piperidine in DMF (3 mL) for 30 minutes at room temperature. After 30 minutes, the solution was filtered and the resin washed with DMF, DCM and MeOH. The washing sequence was repeated four times.

The deprotected resin bound intermediate was suspended in DMF (1.0 mL). 3,5 bis-25 trifluoromethylbenzoyl chloride (47 mg, 0.171 mmol) was added to the resin suspension followed by

764

triethylamine (0.0519 mL, 0.513 mmol). The reaction was mixed for 30 minutes at room temperature. The solution was then filtered and the resin washed sequentially with DMF, DCM and MeOH. The washing sequence was repeated four times.

After drying under vacuum for 20 minutes, the resin bound intermediate was treated with 5 mL of TFA solution (TFA /CH₂Cl₂ /H₂0 20:20:1 v/v). The reaction was shaken for 2 hours and the TFA solution was collected after filtration. The TFA was removed by rotary evaporation and the compound subjected to purification by preparative HPLC to give N-(cis-4-{[(4-methyl quinolin-2-yl)methyl]amino}cyclohexyl)-3,5-bis(trifluoromethyl)benzamide trifluoroacetate (3.8 mg; 8%) as a white solid.

10 ESI MS m/e 510.2 M+H⁺; ¹H NMR (400MHz, CD₃OD) δ (ppm): 8.56 (m, 1H), 8.42 (s, 2H), 8.19 (m, 3H), 7.82 (m, 1H), 7.69 (m, 1H), 7.39 (s, 1H), 4.6 (s, 2H), 4.14 (m, 1H), 3.40 (m, 1H), 2.78 (s, 3H), 2.22-1.81 (m, 8H).

15 Example 3251

cis-N-[(1S)-1-(4-Chlorophenyl)ethyl]-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexanecarboxamide trifluoroacetate

Step A: Synthesis of cis-4-(4-dimethylamino-5-methyl-pyrimidin-2-ylamino)-

20 cyclohexanecarboxylic acid.

A mixture of (2-chloro-5-methyl-pyrimidin-4-yl)-dimethyl-amine (28.9 g, 0.186 mol) and 4-amino-cyclohexanecarboxylic acid (20 g, 0.140 mol) in 100 mL of toluene was stirred at room temperature for 5 minutes to form a slurry under N₂. To the slurry, was added Pd(OAc)₂ (0.34 g, 1.5 x 10⁻³ mol), 2-(di-t-butylphosphine) biphenyl (0.24, 0.8 mmol) and NaOtBu (33.64 g, 0.35 mol). The mixture was heated and refluxed at 118 °C under N₂ for 2 hours. The reaction mixture was

concentrated to give a brown solid. The above brown solid was dissolved with 100 mL MeOH and 5

765

mL H₂O, neutralized with acetic acid. The precipitate was filtered and washed with cold water (5mL x 2) and toluene (100 mL x 2) to yield *cis*-4-(4-dimethylamino-5-methyl-pyrimidin-2-ylamino)-cyclohexanecarboxylic acid (36.7 g, 0.132 mol, 94%) as a white solid.

ESI MS m/e 279 M+H⁺; ¹H NMR (400 MHz, CDCl₃) δ 7.46 (s, 1H), 4.20 (s, 1H), 3.3 (s, 6H), 3.2 (s, 5 1H), 2.48 (m, 1H), 2.27 (s, 3H), 2.15-1.63 (m, 8H).

Step B: Synthesis of *cis-N*-[(1S)-1-(4-chlorophenyl)ethyl]-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexanecarboxamide trifluoroacetate.

To a solution of (S)-1-(4-chloro-phenyl)-ethylamine (61.5 mg, 0.395 mmol) in 10 mL DCM

10 was added *cis*-4-(4-dimethylamino-5-methyl-pyrimidin-2-ylamino)-cyclohexanecarboxylic (100 mg, 0.395 mmol), HATU (150 mg, 0.395 mmol), and 5 drops of Et₃N. The reaction mixture was stirred at room temperature under N₂ overnight. The solvent was evaporated and the material subjected to prep-HPLC to give *cis-N*-[(1S)-1-(4-chlorophenyl)ethyl]-4-{[4-(dimethyl amino)-5-methylpyrimidin-2-yl]amino}cyclohexanecarboxamide trifluoroacetate (20 mg, 0.048 mmol, 13.4%) as a white solid.

15 ESI MS m/e 416.3 M+H⁺; ¹H NMR (400 MHz, DMSO-d₆) δ 8.24-8.12 (d, 1H), 7.55 (s, 1H), 7.32-7.10 (m, 4H), 4.87 (m, 1H), 2.47 (s, 6H), 2.28 (bs, 1H), 2.18 (s, 3H), 1.81-1.39 (m, 8H), 1.31(d, 3H).

Example 3252

20 cis-N-[(1R)-1-(4-Bromophenyl)ethyl]-4-[(4-methylquinolin-2-yl)amino]cyclohexanecarboxamide trifluoroacetate

Step A: Synthesis of cis-4-(4-methylquinolin-2-ylamino)cyclohexanecarboxylic acid.

A mixture of 2-chloro-4-methyl-quinoline (6.67, 0.0375 mol) and 4-amino-

25 cyclohexanecarboxylic acid (4.48 g, 0.0312 mol) was dissolved in 100 mL of toluene and stirred at room temperature for 5 minutes to form a slurry under N₂. To the slurry, was added Pd(OAc)₂ (0.077 g,

766

3.43 x 10⁻⁴ mol), 2-(di-t-butylphosphine) biphenyl (0.093, 3.12 x 10⁻⁴ mol) and NaOtBu (7.5g, 0.078 mol). The above material was heated and refluxed at 118 °C for 2 hours. The reaction mixture was concentrated under reduced pressure to give a brown solid. The above brown solid was dissolved with 100 mL MeOH and 5 mL H₂O, neutralized with acetic acid. The precipitates were filtered and washed with cold water (5 mL x 2) and toluene (100 mL x 2) to yield *cis*-4-(4-methylquinolin-2-ylamino)cyclohexanecarboxylic acid (7.45 g, 0.026 mol, 84%) as a white solid. ESI MS m/e 285.1 M+H⁺; ¹H NMR (400 MHz, DMSO-d₆) δ 7.78 (d, 1H), 7.49 (m, 1H), 7.21 (m, 1H), 6.85 (d, 1H), 6.72 (s, 1H), 4.19 (s, 1H), 2,54-2.53 (m, 2H), 2.46 (s, 3H).

10 Step B: Synthesis of *cis-N*-[(1*R*)-1-(4-bromophenyl)ethyl]-4-[(4-methylquinolin-2-yl)amino]cyclohexanecarboxamide trifluoroacetate.

was added *cis*-4-(4-methylquinolin-2-ylamino)cyclohexanecarboxylic acid (100 mg, 0.35 mmol), HATU (148 mg, 0.39 mmol), and 5 drops of Et₃N. The reaction mixture was stirred at room temperature under N₂ overnight. The solvent was evaporated and the material subjected to prep HPLC to give *cis-N*-[(1*R*)-1-(4-bromophenyl)ethyl]-4-[(4-methylquinolin-2-yl)amino] cyclohexanecarboxamide trifluoroacetate (24 mg, 0.052 mmol, 14.7%) as white solid. ESI MS m/e 468.2 M+H⁺; ¹H NMR (400 MHz, DMSO-d₆) δ 9.18-9.07 (s, 1H), 7.94-7.84 (t, 1H), 7.74-7.68 (t, 1H), 7.46-7.42 (m, 2H), 7.22-7.17 (m, 2H), 7.00-6.94 (s, 1H), 4.86 (m, 1H), 4.11 (s,1H), 2.58 (s, 20 3H), 2.40-2.23 (m, 2H), 1.88-1.49 (m, 8H), 1.33-1.19 (d, 3H).

To a solution of (R)-1-(4-bromo-phenyl)-ethylamine (77.4 mg, 0.39 mmol) in 10 mL DCM

Example 3253

trans-2-(4-Chlorophenyl)-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-

25 yl]amino}cyclohexyl)cyclopropanecarboxamide trifluoroacetate

. 767

Step A: Synthesis of trans-3-(4-chlorophenyl)-N-methoxy-N-methylacrylamide.

A solution of 4-chlorobenzalehyde (3 g, 21.34 mmol) and N-methoxy-N-methyl-2(triphenylphosphoranylidene)acetamide (8.5 g, 23.47 mmol) in CH₂Cl₂ was stirred at room
temperature for 16 h. The solvent was removed in vacuo, and the crude product was purified by
column chromatography on silica gel (0-20% EtOAc / Hex) to afford *trans*-3-(4-chlorophenyl)-Nmethoxy-N-methylacrylamide (4.78 g, 99%) as colorless crystals.

ESI MS m/e 226.1 M+H⁺; ¹H NMR (400 MHz, CDCl₃) δ 7.66 (d, *J* = 5.6 Hz, 1H), 7.45 (d, *J* = 8.4 Hz,
2H), 7.33 (d, *J* = 8.4 Hz, 2H), 6.99 d, *J* = 5.6 Hz, 1H), 3.75 (s, 3H), 3.29 (s, 3H)

10 Step B: Synthesis of N-methoxy-N-methyl-trans-2-(4-chlorophenyl) cyclo- propanecarbxoamide.

To a solution of trimethylsulfoxonium iodide (9.3 g, 42.4 mmol) in DMSO (40 mL) was added sodium hydride (1.7 g, 42.4 mmol) at room temperature in portions. After 1 h, a solution of *trans*-3-(4-chlorophenyl)-N-methoxy-N-methylacrylamide (4.78 g, 21.2 mmol) in DMSO (20 mL) was added via cannula at r.t. The mixture was stirred for another 6 h, and then it was quenched with saturated aqueous NH₄Cl solution, extracted with CH₂Cl₂, washed with brine and dried over anhydrous MgSO₄. The crude product was purified by column chromatography (0-50 % EtOAc / Hex)to afford N-methoxy-N-methyl –*trans*-2-(4-chlorophenyl)cyclopropanecarboxamide as colorless oil (4.76 g, 88.5 %). ESI MS m/e 239.9 M+H⁺; ¹H NMR (400 MHz, CDCl₃) δ 7.24 (d, *J* = 8 Hz, 2H), 7.06 (d, *J* = 8 Hz, 2H), 3.69 (s, 3H), 3.23 (s, 3H), 2.47 (m, 1H), 2.37 (bs, 1H), 1.63 (m, 1H), 1.27 (m, 1H)

Step C: Synthesis of trans-2-(4-chloro-phenyl)cyclopropanecarboxylic acid.

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A suspension of afford N-methoxy-N-methyl -trans-2-(4-chlorophenyl)cyclopropanecarboxamide (4.76 g, 18.76 mmol) and potassium tert-butoxide (4.76 g, 18.76 mmol) in the TBME (130 mL) and water (0.68 mL, 37.5 mmol) was stirred at room temperature for 16h. The mixture was acidified by slowly adding concentrated HCl, and the aqueous mixture was extracted with CH₂Cl₂ (3x60 mL). The combined organic layers were washed with brine and dried over

768

anhydrous MgSO₄. The solvent was removed in vacuo and the product was obtained as white solid (3.447 g, 93.5 %)

ESI MS m/e 197.0 M+H⁺; ¹H NMR (400 MHz, CDCl₃) δ 11.4 (bs, 1H), 7.28 (d, J= 8.4 Hz, 2H), 7.06 (d, J= 8.4 Hz, 2H), 2.60 (ddd, J₁ = 9.5 Hz, J₂ = 6.6 Hz, J₃ = 4.1 Hz, 1H), 1.89 (ddd, J₁ = 9.5 Hz, J₂ = 5.2 Hz, J₃ = 4.2 Hz, 1H), 1.69 (dt, J₁ = 9.5 Hz, J₂ = 5.1 Hz, 1H), 1.40 (ddd, J₁ = 8.4 Hz, J₂ = 5.2 Hz, J₃ = 4.3 Hz, 1H)

Step D: Synthesis of *trans*-2-(4-chlorophenyl)-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)cyclopropanecarboxamide trifluoroacetate.

To a mixture of *trans*-2-(4-chloro-phenyl)cyclopropanecarboxylic acid (22.1 mg, 0.112 mmol) and 2-chloro-4-dimethylamino-5-methylpyrimidine (28 mg, 0.112 mmol) in CH₂Cl₂ (5 mL) was added HATU (42.6 mg, 0.112 mmol)at r.t. After 30 sec Et₃N (5 drops) was added dropwise. The mixture was stirred overnight. *trans*-2-(4-chlorophenyl)-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)cyclopropanecarboxamide trifluoroacetate (20 mg, 37%) was obtained from

ESI MS m/e: 428.4 M+H^+ ; ^1H NMR (400 MHz, CDCl₃) δ 8.49 (bs, 1H), 7.23 (d, J = 8 Hz, 2H), 7.02(d, J = 8 Hz, 2H), 6.28 (d, J = 8 Hz, 1H), 4.11 (m, 1H), 3.99 (m, 1H), 3.29 (s, 6H), 2.45 (ddd, $J_1 = 12 \text{ Hz}$, $J_2 = 8 \text{ Hz}$, $J_3 = 4 \text{ Hz}$, 1H), 2.25 (s, 3H), 1.85-1.65 (m, 11H), 1.58 (dt, $J_1 = 8 \text{ Hz}$, $J_2 = 4 \text{ Hz}$, 1H), 1.18 (dt, $J_1 = 8 \text{ Hz}$, $J_2 = 4 \text{ Hz}$, 1H)

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Example 3254

15 prep-HPLC.

 $N-\{cis-4-[(4,5-Dimethyl)pyrimidin-2-yl)amino] cyclohexyl\}-3,5-bis(trifluoromethyl)benzamide trifluoroacetate$

25

Step A: Synthesis of 2-chloro-4, 5-dimethylpyrimidine.

769

A mixture of 2, 4-dichloro-5-methylpyrimidine (0.3 g, 1.84 mmol), AlMe₃ (0.3 mL, 2.0M) and Pd(PPh₃)₄ (85 mg, 4%mol) in dry THF (5 mL) was heated in a microwave synthesizer at 150 °C for 20 min. The solvent was removed in vacuo and the crude product subjected to chromatography (0-40 % EtOAC/Hex) to yield 2-chloro-4, 5-dimethylpyrimidine (0.13 g, 50 %) as yellow solid.

5 ESI MS m/e: 143.1 M+H⁺; ¹H NMR (400 MHz, CDCl₃) δ 8.24 (s, 1H), 2.45 (s, 3H), 2.22 (s, 3H)

Step B: Synthesis of N-{cis-4-[(4,5-dimethylpyrimidin-2-yl)amino]cyclohexyl}-3,5-bis(trifluoromethyl)benzamide trifluoroacetate.

A mixture of 2-chloro-4, 5-dimethylpyrimidine (30 mg, 0.21 mmol), N-(*cis*-410 aminocyclohexyl)-3,5-bis(trifluoromethyl)benzamide (74.6 mg, 0.21 mmol), Pd(OAc)₂ (0.47 mg,
0.01 equiv.), dppf (1.16 mg, 0.01 equiv.) and KOtBu (59 mg, 0.53 mmol) in toluene (3 mL) was heated
in a microwave synthesizer at 150 °C for 20 min. The solvent was removed in vacuo and the crude
product subjected to purification by HPLC to give *N*-{*cis*-4-[(4,5-dimethyl pyrimidin-2yl)amino]cyclohexyl}-3,5-bis(trifluoromethyl)benzamide trifluoroacetate (25 mg, 21%) as yellow solid.
15 ESI MS m/e 461.2 M+H⁺; ¹H NMR (400 MHz, CDCl₃) δ 8.36 (s, 3H), 7.99 (s, 1H), 4.47 (d, 1H), 4.23
(bs, 1H), 2.52 (s, 3H), 2.13 (s, 3H), 1.95-1.65 (m, 8H)

Example 3255

20 N-(3,4-Difluorophenyl)-N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)urea trifluoroacetate

Step A: Synthesis of N-(3,4-difluorophenyl)-N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)urea trifluoroacetate.

25 cis-N²-(4-Amino-cyclohexyl)-5,N⁴,N⁴-trimethyl-pyrimidine-2,4-diamine (30 mg, 0.12 mmol) was dissolved in 1 mL of DMSO. 1,2-Difluoro-4-isocyanato-benzene was added to the solution, and the

770

solution was stirred overnight. The crude was purified by HPLC to give N-(3,4-difluoro phenyl)-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)urea trifluoroacetate as a white solid. (32.2 mg, 54.0%).

ESI MS m/e 405.3 (M + H⁺); ¹H NMR (400 MHz, CDCl₃) δ 13.45 (s, 1H), 8.35 (d, J = 8.0 Hz, 1H), 5 7.67 (s, 1H), 7.52-7.47 (m, 1H), 7.28-7.26 (m, 1H), 7.07-6.99 (m, 2H), 4.00 (m, 1H), 3.96 (m, 1H), 3.32 (s, 6H), 2.27 (s, 3H), 1.78-1.67 (m, 8H).

Example 3256

10 2-[(3,4-Difluorophenyl)amino]-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)nicotinamide

Step A: Synthesis of 2-[(3,4-difluorophenyl)amino]-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)nicotinamide.

3,4-Difluoro-aniline (20.6 uL, 0.204 mmol) was dissolved in 1.0 mL of DMF. NaH (8.2 mg, 0.204 mmol) was added to the solution and allowed to stir for 10 minutes. 2-Chloro-*N*-[4-(4-dimethylamino-5-methyl-pyrimidin-2-ylamino)-cyclohexyl]-nicotinamide (40 mg, 0.102 mmol) was added and the mixture was stirred for another 5 minutes. The reaction was heated via Smith Synthesizer at 200 °C for 1 hour. The crude was purified by silica column chromatography. The column was flushed with 200 mL mixture methanol and methylene (1:9) and 100 mL of methanol to give 2-[(3,4-difluorophenyl)amino]-*N*-(*cis*-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)nicotinamide as a white solid. (30.0 mg, 61.2%)

ESI-MS m/z 482.5 (M + H⁺); ¹H NMR (400 MHz, CDCl₃) δ 8.32 (dd, *J* = 4.8, 1.6 Hz, 1H), 7.92-7.86 (m, 1H), 7.71 (dd, *J* = 7.6, *J* = 1.6 Hz, 1H), 7.64 (s, 1H), 7.19-7.03 (m, 2H), 6.76-6.73 (m, 1H), 6.34 (d, 25 *J* = 6.8 Hz, 1H), 4.95 (s, 1H), 4.11-4.03 (m, 2H), 2.96 (s, 6H), 2.15 (s, 3H), 1.90-1.68 (m, 8H).

771

Example 3257

N-(4-Chlorophenyl)-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N-ethylurea trifluoroacetate

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Step A: Synthesis of N-(4-chlorophenyl)-N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N-ethylurea trifluoroacetate.

cis-N²-(4-Amino-cyclohexyl)-5,N¹,N¹-trimethyl-pyrimidine-2,4-diamine (75 mg, 0.30 mmol) and 1,1'-carbonyldiimidazole (58 mg, 0.36 mmol) were dissolved in 1 mL of methylene chloride in a
Smith Synthesizer vial and allowed to stir at room temperature overnight. To the vial, (4-chlorophenyl)-ethyl-amine (94 mg, 0.60 mmol) was added. The solution was heated via Smith Synthesizer at 130 °C for 30 minutes. The solvent was evaporated, and 1 mL of methanol was added to the crude to redissolve it. The crude was then purified by HPLC to give N-(4-chlorophenyl)-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N-ethylurea trifluoroacetate as a white
solid. (25.0 mg, 15%)
ESI MS m/e 431.3 (M + H¹); ¹H NMR (400 MHz, CDCl₃) δ 14.0 (s, 1H), 8.65 (d, J = 6.4 Hz, 1H),

ESI MS m/e 431.3 (M + H); 'H NMR (400 MHz, CDCl₃) 8 14.0 (s, 1H), 8.65 (d, J = 6.4 Hz, 1H), 7.53 (dd, J = 9.2, J = 2.4 Hz, 2H), 7.43 (b, 1H), 7.28 (dd, J = 9.2, J = 2.4 Hz, 2H), 4.48 (bs, 1H), 4.16 (bs, 1H), 3.99 (m, 2H), 3.39 (s, 6H), 2.34 (s, 3H), 1.84-1.60 (m, 8H), 1.21 (t, J = 7.0 Hz, 3H).

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Example 3258

N-(cis-4-{[5-Methyl-4-(methylamino)pyrimidin-2-yl]amino}cyclohexyl)-2-{[2-(trifluoromethyl)pyrimidin-4-yl]oxy}acetamide trifluoroacetate

25 Step A: Synthesis of resin bound N-methylamine.

772

2-(3,5 Dimethoxy-4-formyl)phenoxy ethyl polystyrene resin (1.0 gram; 0.90 mmol/gram) and methylamine 2 M in methanol (5.85 mL, 11.7 mmol) in 15 mL of CH₂Cl₂ was suspended in a fritted synthesis flask. To this suspension was added a solution of NaBH(OAc)₃ (.0117 mol) in CH₂Cl₂ (15 mL). After shaking the mixture overnight in a rotary shaker, the solution was removed by filtration.

5 The resulting resin bound N-methylamine was washed sequentially with CH₂Cl₂, DMF, and MeOH. The washing sequence was repeated four times. The resin bound N-methylamine was dried under

Step B: Synthesis of resin bound-4-(N-methyl-5 methyl-2-chloro)-pyrimidine.

vacuum for 20 minutes.

The resin bound N-methylamine was suspended in DMF (10 mL). To the resin suspension was added 2,4 dichloro-5-methyl-pyrimidine (1.35 mmol) followed by triethylamine (0.273 mL, 2.70 mmol). The reaction mixture was shaken overnight at room temperature. The solution was removed by filtration and the resin washed sequentially with DMF, CH₂Cl₂ and MeOH. The wash sequence was repeated four times. The resulting resin bound intermediate was dried under vacuum for 20 minutes..

15 Step C: Synthesis of resin bound *cis*-N-(4-N-methyl-5 methyl-pyrimidyl-2yl)cyclohexane-1,4-diamine.

The resin bound intermediate was divided up into three portions and each portion was transferred into a 5 mL Smith synthesizer reaction vessel. The resins (0.272 mmol) were separately suspended in anhydrous dioxane (3 mL). To each suspension was added *cis* 1,4 diamino cyclohexane (0.405 mmol), tris(dibenzylidineacetone)dipalladium(O) (0.027 mol), 2,2 bisdiphenylphosphino-1,1 binapthyl (BINAP) (0.081mmol) and sodium tert-butoxide (1.35 mmol). The reactions were heated in a microwave synthesizer at 140°C for 20 minutes. At the completion of the reaction, the resin suspension was transferred to 8 mL fritted tubes. The solutions were removed by filtration. The resins were sequentially washed with MeOH, H₂O, MeOH, CH₂Cl₂, and MeOH. The washing sequence was repeated three times. The resulting resin bound intermediate was dried under vacuum for 20 minutes.

773

Step D: Synthesis of *cis*-N-[4-(4-N-methyl-5 methyl-pyrimidyl-2yl-amino)-cyclohexyl]-bromoacetamide.

The resin bound intermediate (0.27 mmol) was suspended in DCM (3 mL). To the resin suspension was added bromoacetyl bromide (0.27 mmol) and DIEA (.094 mL; 0.54 mmol). The reaction was mixed in a rotary shaker for 45 minutes at room temperature. At the completion of the reaction, the solution was removed by filtration. The resin was sequentially washed with DCM, DMF, DCM, and MeOH. The washing sequence was repeated three times. The resulting resin bound intermediate was dried under vacuum for 20 minutes.

10

Step E: Synthesis of N-(cis-4-{[5-methyl-4-(methylamino)pyrimidin-2-yl]amino}cyclohexyl)-2-{[2-(trifluoromethyl)pyrimidin-4-yl]oxy}acetamide trifluoroacetate.

The resin bound intermediate from Step D (0.27 mmol) was transferred into a 5 mL microwave synthesizer vial. The resin was suspended in anhydrous DMF (2 mL). To the resin suspension was added 4 hydroxy-2-trifluoromethyl pyrimidine (0.54 mmol) and potassium carbonate (0.54 mmol). The reaction was heated in a microwave oven at 140 °C for 30 minutes. At the completion of the reaction, the resin suspension was transferred to an 8 mL fritted tube. The solution was removed by filtration and the resin washed sequentially with DMF, DCM, MeOH. The wash sequence repeated three times.

After drying under vacuum for 20 minutes, the resin bound intermediate was treated with 5 mL of TFA solution (TFA /CH₂Cl₂ /H₂0 20:20:1 v/v). The reaction was shaken for 2 hours and the TFA solution was collected after filtration. The TFA was removed by rotary evaporation and the compound subjected to purification by preparative HPLC to give N-(cis-4-{[5-methyl-4-(methylamino)pyrimidin-2-yl]amino}cyclohexyl)-2-{[2-(trifluoromethyl)pyrimidin-4-yl]oxy}acetamide trifluoroacetate (2.1 mg. 5%) as a white solid.

774

ESI MS m/e 440.3 M+H⁺; ¹H NMR (400MHz, CD₃OD) δ (ppm): 8.69 (m, 1H), 7.45 (m, 1H), 7.21-7.17 (m, 1H), 4.95 (m, 2H), 4.03 (bs, 1H), 3.82 (bs, 1H), 3.04 (s, 3H), 1.98 (s, 3H), 1.93-1.61 (m, 8H).

5 Example 3259

2,2-Difluoro-N-(cis-4-{[4-methyl-6-(methylamino)pyrimidin-2-yl]amino}cyclohexyl)-1,3-benzodioxole-5-carboxamide trifluoroacetate

Step A: Synthesis of resin bound N-methylamine.

2-(3,5 Dimethoxy-4-formyl)phenoxy ethyl polystyrene resin (1.0 gram; 0.94mmol/gram) and methylamine (0.0122 mol) in 15 mL of CH₂Cl₂ was suspended in a fritted synthesis flask. To this suspension was added a solution of NaBH(OAC)₃ (0.0122 mol) in CH₂Cl₂ (15 mL). After shaking the mixture overnight in a rotary shaker, the solution was removed by filtration. The resulting resin bound N-methylamine was washed sequentially with CH₂Cl₂, DMF, and MeOH. The washing sequence was repeated four times. The resin bound N-methylamine was dried under vacuum for 20 minutes.

Step B: Synthesis of resin bound-4-(N-methyl-6 methyl- 2-chloro)-pyrimidine.

The resin bound N-methylamine was suspended in DMF (10 mL). To the resin suspension was added 2,4 dichloro-6-methyl-pyrimidine (1.41 mmol) followed by triethylamine (0.393 mL, 2.82 mmol). The reaction mixture was shaken at 40 °C overnight. The solution was removed by filtration and the resin washed sequentially with DMF, CH₂Cl₂ and MeOH. The wash sequence was repeated four times. The resulting resin bound intermediate was dried under vacuum for 20 minutes.

Step C: Synthesis of resin bound *cis*-N-(4-N-methyl-6methyl-pyrimidyl-2yl)cyclohexane-1.4-diamine.

775

The resin bound intermediate was divided up into three portions and each portion was transferred into a 5 mL Smith synthesizer reaction vessel. The resins (0.282 mmol) were separately suspended in a 1:1 solution of IPA/H20 (3 mL). To each suspension was added *cis* 1,4 diamino cyclohexane (0.85 mmol) and DIEA (0.295ml; 1.69 mmol). The reactions were heated in a microwave synthesizer at 180°C for 4.5 hours. The resins were pooled together; and the solution removed by filtration. The resin was sequentially washed with IPA, H₂0, MeOH, CH₂Cl₂, and MeOH. The washing sequence was repeated three times. The resulting resin bound intermediate was dried under vacuum for 20 minutes.

10 Step D: Synthesis of 2,2-difluoro-*N*-(*cis*-4-{[4-methyl-6-(methylamino)pyrimidin-2-yl]amino}cyclohexyl)-1,3-benzodioxole-5-carboxamide trifluoroacetate.

The resin bound intermediate was suspended in DMF (8mL). To the resin suspension was added the 2,2 diflouro 1,3 benzodioxole 5- carbonyl chloride (0.846 mmol) and triethylamine (0.256 mL; 1.69 mmol). The reaction was shaken in a rotary mixer at room temperature for 45 minutes. The solution was removed by filtration and the resin washed sequentially with DMF, CH₂Cl₂, MeOH. The wash sequence repeated three times.

After drying under vacuum for 20 minutes, the resin bound intermediate was treated with 15 mL of TFA solution (TFA /CH₂Cl₂ /H₂0 20:20:1 v/v). The reaction was shaken for 2 hours and the TFA solution was collected after filtration. The TFA was removed by rotary evaporation and the compound subjected to purification by preparative HPLC to give 2,2-difluoro-*N*-(*cis*-4-{[4-methyl-6-(methylamino)pyrimidin-2-yl]amino}cyclohexyl)-1,3-benzodioxole-5-carboxamide trifluoroacetate (2.0 mg. 2%) as a white solid.

ESI MS m/e 420.5 M+H⁺; 1 H NMR (400MHz, CD₃OD) δ (ppm): 8.24 (m, 1H), 7.72-7.68 (m, 2H), 7.31-7.29 (m, 1H), 5.86 (s, 1H), 4.18-3.99 (m, 2H), 2.99 (s, 3H), 2.25 (s, 3H), 1.93-1.80 (m, 8H).

776

Examples 3260-3262

Compounds 3260 to 3262 were prepared in a similar manner as described in Example 3242 using the appropriate bromoacetophemone and amine intermediate from Step A.

5 Examples 3263-3267

Compounds 3263 to 3267 were prepared in a similar manner as described in Example 3243 using the appropriate acid and amine intermediate from Step A.

Examples 3268-3272

Compounds 3268 to 3272 were prepared in a similar manner as described in Example 3244 using the appropriate isocyanate and amine intermediate from Step A.

Examples 3273-3275

Compounds 3723 to 3275 were prepared in a similar manner as described in Example 3245 using the appropriate amine and carboxylic intermediate from Step A.

Examples 3276-3280

Compounds 3276 to 3280 were prepared in a similar manner as described in Example 3246 using the appropriate acid chloride and amine intermediate from Step D.

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Examples 3281-3291

Compounds 3281 to 3291 were prepared in a similar manner as described in Example 2656 using the appropriate thioderivative and amine intermediate from Step A.

25 Examples 3292-3303

777

Compounds 3292 to 3303 were prepared in a similar manner as described in Example 3251 using the appropriate amine and carboxylic intermediate from Step B.

Examples 3304-3307

Compounds 3304 to 3307 were prepared in a similar manner as described in Example 3252 using the appropriate amine and carboxylic intermediate from Step B.

Examples 3308

Compounds 3308 were prepared in a similar manner as described in Example 3251 using the appropriate amine and carboxylic intermediate from Step B.

Examples 3309-3315

Compounds 3309 to 3315 were prepared in a similar manner as described in Example 3252 using the appropriate amine and carboxylic intermediate from Step B.

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Examples 3316-3320

Compounds 3316 to 3320 were prepared in a similar manner as described in Example 3253 using the appropriate aldehyde and amine intermediate from Step D.

20 Examples 3321-3345

Compounds 3321 to 3345 were prepared in a similar manner as described in Example 3255 using the appropriate isocyate and amine intermediate from Step A.

Examples 3346-3355

Compounds 3346 to 3355 were prepared in a similar manner as described in Example 3257 using the appropriate aniline and amine intermediate from Step A.

778

Examples 3356-3357

Compounds 3356 to 3357 were prepared in a similar manner as described in Example 2638 using the appropriate hydroxyaryl derivative and bromide intermediate from Step B.

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Examples 3358-3359

Compounds 3358 to 3359 were prepared in a similar manner as described in Example 3259 using the appropriate acid chloride and amine intermediate from Step D.

10 Examples 3360-3365

Compounds 3360 to 3365 were prepared in a similar manner as described in Example 3259 using the appropriate hydroxyaryl derivative and bromide intermediate from Step E.

Examples 3366-3367

15 Compounds 3366 to 3367 were prepared in a similar manner as described in Example 3250 using the appropriate acid chloride derivative and amine intermediate from Step E.

Examples 3368-3381

Compounds 3368 to 3381 were prepared in a similar manner as described in Example 3249

20 using the appropriate thiophenol and nicotinamide intermediate from Step A.

Example 3382

Compound 3382 was prepared in a similar manner as described in Example 2497 using 4-trifluoromethoxy-benzoyl chloride and the amine intermediate from Step E.

Ex. No.	compound name	MS	class
3260	1-(4-chlorophenyl)-2-[(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)amino]ethanone	402.4 (M + H)	2
3261	1-(3,4-difluorophenyl)-2-[(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)amino]ethanone	404.4 (M + H)	3
3262	1-(4-bromophenyl)-2-[(cis-4-{[4-(dimethylamino)-5- methylpyrimidin-2-yl]amino}cyclohexyl)amino]ethanone	446.3 (M + H)	3
3263	N-{1-[3,5-bis(trifluoromethyl)phenyl]-1-methylethyl}-N'-(cis-4- {[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}- cyclohexyl)urea	547.6 (M + H)	2
3264	N-[1-(4-chlorophenyl)-1-methylethyl]-N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)urea	445.3 (M + H)	1
3265	N-[1-(4-chlorophenyl)-1-methylethyl]-N'-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)urea	445.2 (M + H)	2
3266	N-[1-(4-chlorophenyl)cyclopropyl]-N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)urea	443.3 (M + H)	1
3267	N-[1-(4-chlorophenyl)cyclopropyl]-N'-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)urea	443.4 (M + H)	1
3268	N-{1-[3,5-bis(trifluoromethyl)phenyl]-1-methylethyl}-N'-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-N-methylurea	561.4 (M + H)	3
3269	N-[1-(4-chlorophenyl)-1-methylethyl]-N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N-methylurea	459.6 (M + H)	1
3270	N-[1-(4-chlorophenyl)-1-methylethyl]-N'-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-N-methylurea	459.5 (M + H)	2
3271	N-[1-(4-chlorophenyl)cyclopropyl]-N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N-methylurea	457.5 (M + H)	2
3272	N-[1-(4-chlorophenyl)cyclopropyl]-N'-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-N-methylurea	457.2 (M + H)	3
3273	cis-N-[1-(4-chlorophenyl)-1-methylethyl]-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexanecarboxamide	430.3 (M + H)	2
3274	cis-N-[1-(4-chlorophenyl)-1-methylethyl]-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexanecarboxamide	430.4 (M + H)	3
3275	cis-N-{1-[3,5-bis(trifluoromethyl)phenyl]-1-methylethyl}-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexanecarboxamide	532.3 (M + H)	3
3276	4-chloro-N-{cis-4-[(4-methoxy-5-methylpyrimidin-2-yl)amino]cyclohexyl}benzamide	375.1 (M + H)	3
3277	N-{cis-4-[(4-methoxy-5-methylpyrimidin-2- yl)amino]cyclohexyl}-4-(trifluoromethoxy)benzamide	425.1 (M + H)	3
3278	3,4-dichloro-N-{cis-4-[(4-methoxy-5-methylpyrimidin-2-yl)amino]cyclohexyl}benzamide	408.9 (M + H)	2
3279	3,5-dichloro-N-{cis-4-[(4-methoxy-5-methylpyrimidin-2-yl)amino]cyclohexyl}benzamide	409.1 (M + H)	3

Ex. No.	compound name	MS	class
3280	N-{cis-4-[(4-methoxy-5-methylpyrimidin-2-	477.2 (M + H)	3
3200	yl)amino]cyclohexyl}-3,5-bis(trifluoromethyl)benzamide	177.2 (141 - 11)	, , , , , , , , , , , , , , , , , , ,
3281	N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-	513.4 (M + H)	1
	yl]amino}cyclohexyl)-2-[(4-fluorophenyl)sulfonyl]nicotinamide	015.1 (112 / 11)	1
3282	2-[(4-chlorophenyl)sulfonyl]-N-(cis-4-{[4-(dimethylamino)-5-	529.4 (M + H)	1
	methylpyrimidin-2-yl]amino}cyclohexyl)nicotinamide	(112)	
3283	2-[(3-chlorophenyl)sulfonyl]-N-(cis-4-{[4-(dimethylamino)-5-	529.4 (M + H)	2
	methylpyrimidin-2-yl]amino}cyclohexyl)nicotinamide	(
3284	2-[(2-chlorophenyl)sulfonyl]-N-(cis-4-{[4-(dimethylamino)-5-	529.3 (M + H)	2
	methylpyrimidin-2-yl]amino}cyclohexyl)nicotinamide		
3285	2-[(3-bromophenyl)sulfonyl]-N-(cis-4-{[4-(dimethylamino)-5-	573.6 (M + H)	2
	methylpyrimidin-2-yl]amino}cyclohexyl)nicotinamide	`	
2206	N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-	525 4 (NA) TD	2
3286	yl]amino}cyclohexyl)-2-[(4-methoxyphenyl)sulfonyl]-	525.4 (M + H)	3
	nicotinamide N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-		
3287	yl]amino}cyclohexyl)-2-{[3-(trifluoromethyl)phenyl]sulfonyl}-	562 5 (M.J. TT)	2
	nicotinamide	563.5 (M + H)	2
	N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-		
3288	yl]amino}cyclohexyl)-2-[(4-methylphenyl)sulfonyl]nicotinamide	509.6 (M + H)	2
	2-[(4-bromophenyl)sulfonyl]-N-(cis-4-{[4-(dimethylamino)-5-		
3289	methylpyrimidin-2-yl]amino} cyclohexyl)nicotinamide	573.5 (M + H)	2
	N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-		
3290	yl]amino}cyclohexyl)-2-[(2-methyl-3-furyl)sulfonyl]nicotinamide	499.4 (M + H)	3
	N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-		
3291	yl]amino}cyclohexyl)-2-{[4-(trifluoromethyl)phenyl]sulfonyl}-	563.5 (M + H)	2
	nicotinamide	(2,7 , 77)	- 1
	cis-N-[(1S)-1-(4-chlorophenyl)ethyl]-4-{[4-(dimethylamino)-5-		
3292	methylpyrimidin-2-yl]amino}cyclohexanecarboxamide	416.3 (M + H)	2
	cis-N-{(1S)-1-[3,5-bis(trifluoromethyl)phenyl]ethyl}-4-{[4-		
3293	(dimethylamino)-5-methylpyrimidin-2-	518.4 (M + H)	3
	yl]amino}cyclohexanecarboxamide	` 1	
2204	cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}-N-	400 2 (34 + 11)	
3294	[(1R)-1-(2-fluorophenyl)ethyl]cyclohexanecarboxamide	400.3 (M + H)	3
3295	cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}-N-	400.3 (M + H)	3
3293	[(1S)-1-(2-fluorophenyl)ethyl]cyclohexanecarboxamide	400.5 (M + H)	3
3296	cis-N-[(1S)-1-(4-bromophenyl)ethyl]-4-{[4-(dimethylamino)-5-	460.3 (M + H)	1
3290	methylpyrimidin-2-yl]amino}cyclohexanecarboxamide	400.3 (M + H)	1
3297	cis-N-[(1R)-1-(4-bromophenyl)ethyl]-4-{[4-(dimethylamino)-5-	460.3 (M + H)	2
3291	methylpyrimidin-2-yl]amino}cyclohexanecarboxamide	400.3 (M + H)	
3298	4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}-N-{(1S)-	450.2 (M + H)	1
3236	1-[3-(trifluoromethyl)phenyl]ethyl}cyclohexanecarboxamide	430.2 (M + H)	1
3299	4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}-N-{(1R)-	450.3 (M + H)	1
3233	1-[3-(trifluoromethyl)phenyl]ethyl}cyclohexanecarboxamide	450.5 (141 + 11)	1
3300	4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}-N-{(1S)-	450.4 (M + H)	1
5500	1-[2-(trifluoromethyl)phenyl]ethyl}cyclohexanecarboxamide	170.7 (IVI T II)	1
3301	4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}-N-{(1R)-	450 (M + H)	3
3301	1-[2-(trifluoromethyl)phenyl]ethyl}cyclohexanecarboxamide	+20 (M + H)	ا د

Ex. No.		MS	class
	cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}-		
3302	N-{(1S)-1-[4-(trifluoromethoxy)phenyl]ethyl}-	466.4 (M + H)	1
	cyclohexanecarboxamide		
	cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}-		
3303	N-{(1R)-1-[4-(trifluoromethoxy)phenyl]ethyl}-	466.4 (M + H)	2
	cyclohexanecarboxamide		
2204	cis-N-[(1S)-1-(4-bromophenyl)ethyl]-4-[(4-methylquinolin-2-	166 10 5 1 70	_
3304	yl)amino]cyclohexanecarboxamide	466.4 (M + H)	3
2205	cis-N-[(1R)-1-(4-chlorophenyl)ethyl]-4-[(4-methylquinolin-2-	400 2 O L 1 TD	
3305	yl)amino]cyclohexanecarboxamide	422.3 (M + H)	2
2206	cis-N-[(1S)-1-(4-chlorophenyl)ethyl]-4-[(4-methylquinolin-2-	100 1 0 5 1 77	
3306	yl)amino]cyclohexanecarboxamide	422.4 (M + H)	2
22.2	cis-4-[(4-methylquinolin-2-yl)amino]-N-{(1R)-1-[3-	456005.33	
3307	(trifluoromethyl)phenyl]ethyl}cyclohexanecarboxamide	456.3 (M + H)	1
	cis-N-[(1S)-1-(4-bromophenyl)ethyl]-4-{[4-(dimethylamino)-5-		
3308	methylpyrimidin-2-yl]amino}cyclohexanecarboxamide	460 (M + H)	1
	cis-N-{(1S)-1-[3,5-bis(trifluoromethyl)phenyl]ethyl}-4-[(4-		
3309	methylquinolin-2-yl)amino]cyclohexanecarboxamide	524.2 (M + H)	2
	cis-4-[(4-methylquinolin-2-yl)amino]-N-{(1R)-1-[4-		
3310	(trifluoromethoxy)phenyl]ethyl}cyclohexanecarboxamide	472.4 (M + H)	3
	cis-N-[(1R)-1-(2-fluorophenyl)ethyl]-4-[(4-methylquinolin-2-		_
3311	yl)amino]cyclohexanecarboxamide	406.2 (M + H)	3
	cis-N-[(1S)-1-(2-fluorophenyl)ethyl]-4-[(4-methylquinolin-2-		
3312	yl)amino]cyclohexanecarboxamide	406.3 (M + H)	1
	cis-4-[(4-methylquinolin-2-yl)amino]-N-{(1R)-1-[2-		_
3313	(trifluoromethyl)phenyl]ethyl}cyclohexanecarboxamide	456.2 (M + H)	2
	cis-4-[(4-methylquinolin-2-yl)amino]-N-{(1S)-1-[2-		
3314	(trifluoromethyl)phenyl]ethyl}cyclohexanecarboxamide	456.3 (M + H)	1
	cis-4-[(4-methylquinolin-2-yl)amino]-N-{(1S)-1-[3-		_
3315	(trifluoromethyl)phenyl]ethyl}cyclohexanecarboxamide	456 (M + H)	1
	trans -2-(4-chlorophenyl)-N-(cis-4-{[4-(dimethylamino)-5-		
3316	methylpyrimidin-2-yl]amino}cyclohexyl)-	428.4 (M + H)	1
	cyclopropanecarboxamide		
	trans -2-(3-chlorophenyl)-N-(cis-4-{[4-(dimethylamino)-5-		
3317	methylpyrimidin-2-yl]amino}cyclohexyl)-	428 (M + H)	1
	cyclopropanecarboxamide	()	_
	trans -2-(3,4-difluorophenyl)-N-(cis-4-{[4-(dimethylamino)-5-		
3318	methylpyrimidin-2-yl]amino}cyclohexyl)-	430.2 (M + H)	1
	cyclopropanecarboxamide	(12)	
	trans -2-(3,4-dichlorophenyl)-N-(cis-4-{[4-(dimethylamino)-5-		
3319	methylpyrimidin-2-yl]amino}cyclohexyl)-	462.3 (M + H)	1
2217	cyclopropanecarboxamide	' (111 , 11)	•
	trans -2-[3,5-bis(trifluoromethyl)phenyl]-N-(cis-4-{[4-		
3320	(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-	530.2 (M + H)	1
2220	cyclopropanecarboxamide	[220.2 (141 + 11)]	,
	N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-		
3321		399.3 (M + H)	2
	yl]amino}cyclohexyl)-N'-(2-methoxyphenyl)urea	<u> </u>	

Ex. No.	compound name	MS	class
3322	N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N'-(3-methoxyphenyl)urea	399.3 (M + H)	3
3323	N-(3,4-dimethoxyphenyl)-N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)urea	429.4 (M + H)	1
3324	N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2- yl]amino}cyclohexyl)-N'-(2-fluorophenyl)urea	387.5 (M + H)	2
3325	N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2- yl]amino}cyclohexyl)-N'-(3-fluorophenyl)urea	387.4 (M + H)	2
3326	N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N'-(4-fluorophenyl)urea	387.4 (M + H)	1
3327	N-(3,4-difluorophenyl)-N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)urea	405.3 (M + H)	2
3328	N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N'-[3-(trifluoromethyl)phenyl]urea	437.3 (M+H)	
3329	N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N'-[4-(trifluoromethyl)phenyl]urea	437.2 (M + H)	
3330	N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N'-[2-(trifluoromethoxy)phenyl]urea	453.1 (M + H)	1
3331	N-(3-chloro-4-fluorophenyl)-N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)urea	421.1 (M + H)	2
3332	N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N'-[4-fluoro-3-(trifluoromethyl)-phenyl]urea	455.3 (M + H)	
3333	N-(4-chlorophenyl)-N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)urea	403.2 (M+H)	2
3334	N-[3,5-bis(trifluoromethyl)phenyl]-N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)urea	505.3 (M+H)	2
3335	N-(4-bromophenyl)-N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)urea	447.1 (M + H)	1
3336	N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N'-(2-methylphenyl)urea	383.2 (M + H)	2
3337	N-(3,4-dichlorophenyl)-N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)urea	437.3 (M+H)	.2
3338	N-(2,4-dichlorophenyl)-N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)urea	437.3 (M + H)	2
3339	N-(3,5-dichlorophenyl)-N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)urea	437.3 (M + H)	2
3340	N-(3-chlorophenyl)-N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)urea	403.4 (M + H)	
3341	N-benzyl-N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)urea	383.5 (M + H)	2
3342	N-(2,5-dichlorophenyl)-N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)urea	437.3 (M + H)	2
3343	N-(2,3-dichlorophenyl)-N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)urea	437.3 (M + H)	3
3344	N-[2-chloro-6-(trifluoromethyl)phenyl]-N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)urea	471.3 (M + H)	3

Ex. No.		MS	class
3345	N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N'-(2,4,6-trichlorophenyl)urea	471.3 (M + H)	1
3346	N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N-(2-fluorophenyl)-N-methylurea	401.2 (M + H)	3
3347	N-(2-chlorophenyl)-N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N-methylurea	417.1 (M + H)	2
3348	N-(2,4-dichlorophenyl)-N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N-methylurea	451.2 (M + H)	1
3349	N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N-ethyl-N-[2-(trifluoromethoxy)-phenyl]urea	481.3 (M + H)	2
3350	N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N-ethyl-N-phenylurea	397.1 (M + H)	1
3351	N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N-ethyl-N-[4-(trifluoromethoxy)-phenyl]urea	481.1 (M + H)	1
3352	N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N-methyl-N-[2-(trifluoromethoxy)-phenyl]urea	467.2 (M + H)	1
3353	N-(4-chlorophenyl)-N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N-ethylurea	431.3 (M + H)	1
3354	N-[3,5-bis(trifluoromethyl)phenyl]-N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N-ethylurea	533.1 (M + H)	1
3355	N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N-ethyl-N-(3-methylphenyl)urea	411.3 (M + H)	1
3356	N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2-{[1-methyl-3-(trifluoromethyl)-1H-pyrazol-5-yl]oxy}acetamide	456.4 (M + H)	1
3357	N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2-{[6-(trifluoromethyl)pyrimidin-4-yl]oxy}acetamide	454.2 (M + H)	3
3358	2,2-difluoro-N-(cis-4-{[4-methyl-6-(methylamino)pyrimidin-2-yl]amino}cyclohexyl)-1,3-benzodioxole-5-carboxamide	420.5 (M + H)	
3359	4-chloro-N-(cis-4-{[4-methyl-6-(methylamino)pyrimidin-2-yl]amino}cyclohexyl)-3-(trifluoromethyl)benzamide	442.1 (M + H)	
3360	2-(3,4-dichlorophenoxy)-N-(cis-4-{[4-methyl-6- (methylamino)pyrimidin-2-yl]amino}cyclohexyl)acetamide	43 8. 3 (M + H)	1
3361	N-(cis-4-{[5-methyl-4-(methylamino)pyrimidin-2-yl]amino}- cyclohexyl)-2-{[2-(trifluoromethyl)pyrimidin-4-yl]oxy}- acetamide	440.3 (M + H)	
3362	N-(cis-4-{[5-methyl-4-(methylamino)pyrimidin-2-yl]amino}- cyclohexyl)-2-{[1-methyl-3-(trifluoromethyl)-1H-pyrazol-5- yl]oxy}acetamide	442.5 (M + H)	3
3363	N-(cis-4-{[5-methyl-4-(methylamino)pyrimidin-2-yl]amino}-cyclohexyl)-2-{[6-(trifluoromethyl)pyrimidin-4-yl]oxy}acetamide	440.3 (M + H)	3

Ex. No.	compound name	MS	class
3364	N-(cis-4-{[5-methyl-4-(methylamino)pyrimidin-2-yl]amino}-cyclohexyl)-2-{[1-methyl-5-(trifluoromethyl)-1H-pyrazol-3-yl]oxy}acetamide	442.4 (M + H)	3
3365	N-(cis-4-{[5-methyl-4-(methylamino)pyrimidin-2-yl]amino}-cyclohexyl)-2-{[3-(trifluoromethyl)-1H-pyrazol-5-yl]oxy}-acetamide	428.2 (M + H)	
3366	3,4-difluoro-N-(cis-4-{[(4-methylquinolin-2-yl)methyl]amino}cyclohexyl)benzamide	410.3 (M+H)	3
3367	3-chloro-N-(cis-4-{[(4-methylquinolin-2-yl)methyl]amino}cyclohexyl)benzamide	408.3 (M+H)	
3368	N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-2-[(4-fluorophenyl)sulfonyl]nicotinamide	513.5 (M + H)	2
3369	2-[(2-chlorophenyl)sulfonyl]-N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)nicotinamide	513.5 (M+H)	2
3370	2-[(3-chlorophenyl)sulfonyl]-N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)nicotinamide	529.1 (M+H)	2
3371	2-[(4-chlorophenyl)sulfonyl]-N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)nicotinamide	529.1 (M+H)	3
3372	2-[(2-bromophenyl)sulfonyl]-N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)nicotinamide	573.3 (M+H)	3
3373	2-[(3-bromophenyl)sulfonyl]-N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)nicotinamide	575.4 (M + H)	2
3374	2-[(4-bromophenyl)sulfonyl]-N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)nicotinamide	573.2 (M + H)	3
3375	N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-2-[(2-methylphenyl)sulfonyl]nicotinamide	509.5 (M+H)	2
3376	N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-2-[(3-methylphenyl)sulfonyl]nicotinamide	509.5 (M+H)	3
3377	N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-2-[(4-methylphenyl)sulfonyl]nicotinamide	509.5 (M + H)	2
3378	N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-2-[(2-methoxyphenyl)sulfonyl]-nicotinamide	525.3 (M + H)	. 3
3379	N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-2-[(3-methoxyphenyl)sulfonyl]-nicotinamide	525.3 (M + H)	3
3380	N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-2-[(4-methoxyphenyl)sulfonyl]-nicotinamide	525.3 (M + H)	3
3381	N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-2-{[2-(trifluoromethyl)phenyl]-sulfonyl}nicotinamide	563.4 (M + H)	3
3382	N-{cis-4-[(4-methylquinolin-2-yl)amino]cyclohexyl}-4- (trifluoromethoxy)benzamide	444.4 (M + H)	1

Example 3383

 $\label{lem:condition} \begin{tabular}{ll} 4-Chloro-N-[\emph{cis}-4-(4-dimethylamino-6-methyl-pyrimidin-2-ylamino)-cyclohexyl]-3-line of the condition of the cond$

5 Step A: Synthesis of 4-chloro-N-[cis-4-(4-dimethylamino-6-methyl-pyrimidin-2-ylamino)-cyclohexyl]-3-fluoro-benzamide hydrochloride.

To a solution of N^2 -(cis-4-amino-cyclohexyl)-6, N^4 , N^4 -trimethyl-pyrimidine-2,4-diamine obtained in step A of example 3127 (300 mg) in DMF (3 mL) were added 4-chloro-3-fluoro-benzoic acid (252 mg), Et₃N (0.42 mL), HOBt-H₂O (276 mg), and EDC-HCl (277 mg). The reaction mixture was stirred at ambient temperature for 1 day. The reaction mixture was poured into saturated aqueous NaHCO₃ and the aqueous layer was extracted with CHCl₃ (three times). The combined organic layer was dried over MgSO₄, filtered, concentrated under reduced pressure, and purified by medium-pressure liquid chromatography (NH-silica gel, 15% to 60% EtOAc in hexane). The solution of the above purified material in EtOAc (5 mL) was added 4 M hydrogen chloride in EtOAc (10 mL). The mixture was stirred at ambient temperature for 1 hr and concentrated. The residue was suspended in Et₂O (20 mL) and the suspension was stirred at ambient temperature for 2 hr. The precipitate was collected by filtration, washed with Et₂O, and dried at 80 °C under reduced pressure to give 4-chloro-N-[cis-4-(4-dimethylamino-6-methyl-pyrimidin-2-ylamino)-cyclohexyl]-3-fluoro-benzamide hydrochloride (335 mg) as a white solid.

20 ESI MS m/e 406, M (free) + H⁺; 1 H NMR (300 MHz, CDCl₃) δ 1.64-2.01 (m, 8 H), 2.35 (s, 3 H), 3.14 (s, 3 H), 3.26 (s, 3 H), 4.02-4.31 (m, 2 H), 5.74 (s, 1 H), 6.84-6.96 (m, 1 H), 7.40-7.49 (m, 1 H), 7.53-7.60 (m, 1 H), 7.69 (dd, J = 9.7, 1.9 Hz, 1 H), 8.48-8.65 (m, 1 H), 12.93-13.08 (m, 1 H).

25 Example 3384

3-Chloro-N-[cis-4-(4-dimethylamino-6-methyl-pyrimidin-2-ylamino)-cyclohexyl]-5-fluoro-benzamide hydrochloride

WO 2004/087669

786

Step A: Synthesis of 3-chloro-N-[cis-4-(4-dimethylamino-6-methyl-pyrimidin-2-ylamino)-cyclohexyl]-5-fluoro-benzamide hydrochloride.

Using the procedure for the step A of example 3383, the title compound was obtained.

ESI MS m/e 406, M (free) + H⁺; ¹H NMR (300 MHz, CDCl₃) δ 1.64-2.05 (m, 8 H), 2.36 (s, 3 H), 3.15

(s, 3 H), 3.26 (s, 3 H), 4.01-4.30 (m, 2 H), 5.75 (s, 1 H), 6.45-6.54 (m, 1 H), 7.17-7.23 (m, 1 H), 7.40-7.47 (m, 1 H), 7.57-7.61 (m, 1 H), 8.60-8.71 (m, 1 H), 13.07-13.19 (m, 1 H).

Example 3385

10 N-[cis-4-(4-Dimethylamino-6-methyl-pyrimidin-2-ylamino)-cyclohexyl]-3,4,5-trifluoro-benzamide hydrochloride

Step A: Synthesis of *N*-[*cis*-4-(4-dimethylamino-6-methyl-pyrimidin-2-ylamino)-cyclohexyl]-3,4,5-trifluoro-benzamide hydrochloride.

Using the procedure for the step A of example 3383, the title compound was obtained.

ESI MS m/e 408, M (free) + H⁺; ¹H NMR (300 MHz, CDCl₃) δ 1.62-2.01 (m, 8 H), 2.36 (s, 3 H), 3.14 (s, 3 H), 3.26 (s, 3 H), 4.00-4.32 (m, 2 H), 5.75 (s, 1 H), 6.70-6.81 (m, 1 H), 7.47-7.59 (m, 2 H), 8.54-8.66 (m, 1 H), 12.92-13.08 (m, 1 H).

20

Example 3386

3-Chloro-4-fluoro-*N*-[*cis*-4-(5-methyl-4-methylamino-pyrimidin-2-ylamino)-cyclohexyl]-benzamide hydrochloride

25 Step A: Synthesis of (2-chloro-5-methyl-pyrimidin-4-yl)-methyl-amine.

To the solution of 2,4-dichloro-5-methylpyrimidine (5.00 g) in THF (50 mL) were added iPr₂NEt (6.4 mL) and 40% aqueous MeNH₂ (4.78 mL). The mixture was stirred at ambient temperature for 12 hr and concentrated under reduced pressure. To the residue was added saturated

787

aqueous NaHCO₃ and the aqueous layer was extracted with CHCl₃ (three times). The combined organic layer was dried over MgSO₄, filtered, concentrated, and purified by medium-pressure liquid chromatography (NH-silica gel, 9% to 20% EtOAc in hexane) to give (2-chloro-5-methyl-pyrimidin-4-yl)-methyl-amine (3.55 g) as a white solid.

5 ESI MS m/e 408, M + H⁺; 1 H NMR (300 MHz, CDCl₃) δ 2.01 (d, J = 0.8 Hz, 3 H), 3.07 (d, J = 5.0 Hz, 3 H), 4.89-5.06 (m, 1 H), 7.79 (s, 1 H).

Step B: Synthesis of 3-chloro-4-fluoro-N-[cis-4-(5-methyl-4-methylamino-pyrimidin-2-ylamino)-cyclohexyl]-benzamide hydrochloride.

Using the procedure for the step B of example 3228, the title compound was obtained. ESI MS m/e 392, M (free) + H⁺; 1 H NMR (300 MHz, DMSO-d₆) δ 1.64-1.98 (m, 11 H), 2.94 (d, J = 4.5 Hz, 3 H), 3.80-4.08 (m, 2 H), 7.48-7.67 (m, 2 H), 7.87-7.95 (m, 1 H), 8.08-8.51 (m, 4 H), 11.95-12.03 (m, 1 H).

15

Example 3387

 $\begin{tabular}{l} 4-Chloro-N-[cis-4-(4-dimethylamino-5-methyl-pyrimidin-2-ylamino)-cyclohexyl]-3-fluorobenzamide hydrochloride \\ \end{tabular}$

20 Step A: Synthesis of 4-chloro-N-[cis-4-(4-dimethylamino-5-methyl-pyrimidin-2-ylamino)-cyclohexyl]-3-fluoro-benzamide hydrochloride.

To a solution of N^2 -(cis-4-amino-cyclohexyl)-5, N^4 , N^4 -trimethyl-pyrimidine-2,4-diamine obtained in step C of example 3119 (250 mg) in DMF (4 mL) were added 4-chloro-3-fluoro-benzoic acid (209 mg), Et₃N (0.36 mL), HOBt-H₂O (230 mg), and EDC-HCl (230 mg). The reaction mixture was stirred at ambient temperature for 16 hr. The reaction mixture was poured into saturated aqueous NaHCO₃ and the aqueous layer was extracted with CHCl₃ (three times). The combined organic layer was dried over MgSO₄, filtered, concentrated under reduced pressure, and purified by medium-pressure liquid chromatography (NH-silica gel, 20% to 40% EtOAc in

hexane). The solution of the above purified material in EtOAc (10 mL) was added 4 M hydrogen chloride in EtOAc (0.5 mL). The mixture was stirred at ambient temperature for 1 hr and concentrated. The residue was suspended in Et₂O (10 mL) and the suspension was stirred at ambient temperature for 4 hr. The precipitate was collected by filtration, washed with Et₂O, and dried at 80 °C under reduced pressure to give 4-chloro-*N*-[*cis*-4-(4-dimethylamino-5-methyl-pyrimidin-2-ylamino)-cyclohexyl]-3-fluoro-benzamide hydrochloride (208 mg) as a white solid. ESI MS m/e 406, M (free) + H⁺; ¹H NMR (300 MHz, CDCl₃) δ 1.65-2.00 (m, 8 H), 2.26 (s, 3 H), 3.31 (s, 6 H), 3.98-4.27 (m, 2 H), 6.53-6.72 (m, 1 H), 7.20-7.27 (m, 1 H), 7.41-7.59 (m, 2 H), 7.64-7.73 (m, 1 H), 8.53-8.73 (m, 1 H), 12.76-12.95 (m, 1 H).

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Example 3388

3-Chloro-*N*-[*cis*-4-(4-dimethylamino-5-methyl-pyrimidin-2-ylamino)-cyclohexyl]-5-fluoro-benzamide hydrochloride

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Step A: Synthesis of 3-chloro-*N*-[cis-4-(4-dimethylamino-5-methyl-pyrimidin-2-ylamino)-cyclohexyl]-5-fluoro-benzamide hydrochloride.

Using the procedure for the step A of example 3387, the title compound was obtained.

ESI MS m/e 406, M (free) + H⁺; ¹H NMR (300 MHz, CDCl₃) δ 1.64-2.01 (m, 8 H), 2.26 (s, 3 H), 3.30

20 (s, 6 H), 4.02-4.25 (m, 2 H), 7.02-7.28 (m, 3 H), 7.46-7.53 (m, 1 H), 7.63-7.68 (m, 1 H), 8.48-8.60 (m, 1 H), 12.70-12.84 (m, 1 H).

Example 3389

25 N-[cis-4-(4-Dimethylamino-5-methyl-pyrimidin-2-ylamino)-cyclohexyl]-3,4,5-trifluoro-benzamide hydrochloride

Step A: Synthesis of N-[cis-4-(4-dimethylamino-5-methyl-pyrimidin-2-ylamino)-cyclohexyl]-

3,4,5-trifluoro-benzamide hydrochloride.

Using the procedure for the step A of example 3387, the title compound was obtained.

ESI MS m/e 408, M (free) + H⁺; ¹H NMR (300 MHz, CDCl₃) 8 1.60-2.02 (m, 8 H), 2.26 (s, 3 H), 3.31 (s, 6 H), 4.01-4.26 (m, 2 H), 6.65-6.76 (m, 1 H), 7.21-7.29 (m, 1 H), 7.48-7.60 (m, 2 H), 8.57-8.69 (m, 5 H), 12.73-12.91 (m, 1 H).

Example 3390

 $N\hbox{-}[{\it cis}\hbox{-}4\hbox{-}(4\hbox{-}{\rm Dimethylamino}\hbox{-}5\hbox{-}{\rm methyl-pyrimidin-2-ylamino})\hbox{-}{\rm cyclohexyl}]\hbox{-}3,5\hbox{-}{\rm difluoro-}$

10 benzamide hydrochloride

Step A: Synthesis of *N*-[*cis*-4-(4-dimethylamino-5-methyl-pyrimidin-2-ylamino)-cyclohexyl]-3,5-difluoro-benzamide hydrochloride.

Using the procedure for the step D of example 3119, the title compound was obtained.

15 ESI MS m/e 390, M (free) + H⁺; ¹H NMR (300 MHz, CDCl₃) & 1.61-2.06 (m, 8 H), 2.26 (s, 3 H), 3.31 (s, 6 H), 4.01-4.29 (m, 2 H), 6.55-6.70 (m, 1 H), 6.84-7.01 (m, 1 H), 7.18-7.43 (m, 3 H), 8.54-8.71 (m, 1 H), 12.77-12.97 (m, 1 H).

20 Example 3391

 $2\hbox{-}(3,4\hbox{-Difluoro-phenyl})\hbox{-}N\hbox{-}[\emph{cis-}4\hbox{-}(4\hbox{-}\dimethylamino-5\hbox{-}methyl-pyrimidin-}2\hbox{-}ylamino)\hbox{-}cyclohexyl]\hbox{-}acetamide hydrochloride }$

Step A: Synthesis of 2-(3,4-difluoro-phenyl)-N-[cis-4-(4-dimethylamino-5-methyl-

25 pyrimidin-2-ylamino)-cyclohexyl]-acetamide hydrochloride.

Using the procedure for the step A of example 3387, the title compound was obtained. ESI MS m/e 404, M (free) + H^+ ; ¹H NMR (300 MHz, CDCl₃) δ 1.57-1.94 (m, 8 H), 2.24 (s, 3 H), 3.29 (s, 6 H), 3.47 (s, 2 H), 3.80-3.97 (m, 1 H), 4.05-4.18 (m, 1 H), 6.01-6.15 (m, 1 H), 6.95-7.28 (m, 4

790

H), 8.46-8.86 (m, 1 H), 12.81-13.01 (m, 1 H).

Example 3392

5 N-[cis-4-(4-Amino-5-methyl-pyrimidin-2-ylamino)-cyclohexyl]-3-chloro-4-fluoro-benzamide hydrochloride

Step A: Synthesis of 2-chloro-5-methyl-pyrimidin-4-ylamine.

To the solution of 2,4-dichloro-5-methylpyrimidine (1.00 g) in IPA (2 mL) was added 28% aqueous NH₃ (2 mL). The mixture was heated in a microwave synthesizer at 120°C for 20 min. To the mixture was added saturated aqueous NaHCO₃ and the aqueous layer was extracted with CHCl₃ (three times). The combined organic layer was dried over MgSO₄, filtered, concentrated, and purified by medium-pressure liquid chromatography (NH-silica gel, 20% to 50% EtOAc in hexane) to give 2-chloro-5-methyl-pyrimidin-4-ylamine (151 mg) as a white solid.

15 ESI MS m/e 143, M⁺; 1 H NMR (300 MHz, DMSO-d₆) δ 1.94 (s, 3 H), 7.81 (s, 1 H).

Step B: Synthesis of N-[cis-4-(4-amino-5-methyl-pyrimidin-2-ylamino)-cyclohexyl]-3-chloro-4-fluoro-benzamide hydrochloride.

Using the procedure for the step B of example 3228, the title compound was obtained.

20 ESI MS m/e 378, M (free) + H⁺; ¹H NMR (300 MHz, DMSO-d₆) 8 1.63-1.94 (m, 8 H), 1.91 (s, 3 H), 3.79-4.00 (m, 2 H), 7.52 (t, *J* = 8.9 Hz, 1 H), 7.63-7.70 (m, 1 H), 7.78-7.99 (m, 2 H), 8.07-8.13 (m, 1 H), 8.28-8.48 (m, 1 H), 11.86-11.96 (m, 1 H).

25 Example 3393

2-(3,4-Dichloro-phenoxy)-N-[cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-acetamide hydrochloride

Step A: Synthesis of 2-(3,4-dichloro-phenoxy)-N-[cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-acetamide hydrochloride.

Using the procedure for the step A of example 3198, the title compound was obtained. ESI MS m/e 438, M (free)⁺; ¹H NMR (300 MHz, CDCl₃) δ 1.59-2.03 (m, 8 H), 3.17 (s, 3 H), 3.27 (s, 3 H), 3.88-4.08 (m, 1 H), 4.11-4.25 (m, 1 H), 4.43 (s, 2 H), 5.96 (d, J= 7.5 Hz, 1 H), 6.66-6.79 (m, 1 H), 6.88 (dd, J= 8.9, 3.0 Hz, 1 H), 7.10 (d, J= 3.0 Hz, 1 H), 7.37 (d, J= 8.9 Hz, 1 H), 7.43-7.53 (m, 1 H), 8.69-8.83 (m, 1 H), 13.21 (brs, 1 H).

10 Example 3394

N-[cis-4-(4-Dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-2-(3-methoxy-phenoxy)-acetamide hydrochloride

Step A: Synthesis of N-[cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-2-(3-methoxy-phenoxy)-acetamide hydrochloride.

Using the procedure for the step A of example 3198, the title compound was obtained.

ESI MS m/e 400, M (free) + H⁺; ¹H NMR (300 MHz, CDCl₃) & 1.63-2.03 (m, 8 H), 3.16 (s, 3 H), 3.27 (s, 3 H), 3.82 (s, 3 H), 3.92-4.08 (m, 1 H), 4.09-4.23 (m, 1 H), 4.45 (s, 2 H), 5.96 (d, *J* = 7.3 Hz, 1 H), 6.47-6.64 (m, 3 H), 6.75-6.90 (m, 1 H), 7.14-7.25 (m, 1 H), 7.40-7.56 (m, 1 H), 8.62-8.79 (m, 20 1 H), 13.29 (brs, 1 H).

Example 3395

N-[cis-4-(4-Dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-C-(ethyl-phenyl-amino)25 acetamide dihydrochloride

Step A: Synthesis of N-[cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-C-(ethyl-phenyl-amino)-acetamide dihydrochloride.

792

Using the procedure for the step A of example 3198, the title compound was obtained. ESI MS m/e 397, M (free) + H⁺; 1 H NMR (300 MHz, DMSO-d6) δ 1.09 (t, J= 7.0 Hz, 3 H), 1.41-1.87 (m, 8 H), 3.14 (s, 3 H), 3.18 (s, 3 H), 3.43 (q, J= 7.0 Hz, 2 H), 3.60-3.80 (m, 1 H), 3.82-4.01 (m, 3H), 6.36 (d, J= 7.5 Hz, 1 H), 6.57-6.80 (m, 3 H), 7.06-7.28 (m, 2 H), 7.72-8.05 (m, 2 H), 8.20-8.42 (m, 1 H), 12.19 (brs, 1 H).

Example 3396

5-Chloro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide

10

Step A: Synthesis of 5-bromo-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide.

To a solution of *N*-(*cis*-4-methyl-quinolin-2-yl)-cyclohexane-1,4-diamine obtained in step A of example 3070 (5.00 g) in DMF (50 mL) were added 5-bromo-nicotinic acid (4.74 g), Et₃N (6.55 mL), 15 HOBt-H₂O (4.50 g), and EDC-HCl (4.51 g). The reaction mixture was stirred at ambient temperature for 16 hr. The reaction mixture was poured into saturated aqueous NaHCO₃ and the aqueous layer was extracted with CHCl₃ (three times). The combined organic layer was dried over MgSO₄, filtered, concentrated under reduced pressure, and purified by medium-pressure liquid chromatography (NH-silica gel, 20% to 40% EtOAc in hexane) to give 5-bromo-*N*-[*cis*-4-(4-methyl-

20 quinolin-2-ylamino)-cyclohexyl]-nicotinamide (9.81 g) as a white solid.

ESI MS m/e 439, M + H⁺; ¹H NMR (300 MHz, CDCl₃) δ 1.67-2.84 (m, 8 H), 2.58 (s, 3 H), 4.07-4.24 (m, 2 H), 4.72-4.83 (m, 1 H), 6.11-6.20 (m, 1 H), 6.52 (s, 1 H), 7.20-7.28 (m, 1 H), 7.49-7.81 (m, 3 H), 8.23-8.29 (m, 1 H), 8.79 (d, *J* = 2.3 Hz, 1 H), 8.86 (d, *J* = 1.9 Hz, 1 H).

25 Step B: Synthesis of 5-amino-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide.

To the solution of 5-bromo-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide (6.00 g) in EtOH (40 mL) were added copper (2.17 g), cuprous chloride (3.37 g), and

28% aqueous NH₃ (40.0 mL). The mixture was stirred at 180°C for 4 hr in a sealed tube. The mixture was filtrated through a pad of celite and the aqueous layer was extracted with CHCl₃ (three times). The combined organic layer was dried over MgSO₄, filtered, concentrated under reduced pressure, and purified by medium-pressure liquid chromatography (silica gel, 25% to 50% EtOAc in hexane) to give 5-amino-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide (3.92 g) as a white solid.

ESI MS m/e 376, M + H⁺; ¹H NMR (300 MHz, CDCl₃) δ 1.66-2.04 (m, 8 H), 2.58 (s, 3 H), 3.88-4.24 (m, 4 H), 4.75-4.90 (m, 1 H), 6.18-6.31 (m, 1 H), 6.52 (s, 1 H), 7.19-7.29 (m, 1 H), 7.39-7.44 (m, 1 H), 7.48-7.58 (m, 1 H), 7.62-7.70 (m, 1 H), 7.73-7.80 (m, 1 H), 8.19 (d, *J* = 2.8 Hz, 1 H), 8.29 (d, *J* = 1.6 Hz, 1 H).

Step C: Synthesis of 5-chloro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide.

A mixture of conc. HCl (1.33 mL) and NaNO₂ (137.8 mg) was stirred at 70 °C for 10 min and cooled to ambient temperature. To the reaction mixture was added a solution of 5-amino-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide (500 mg) in AcOH (45 mL) and the mixture was stirred at ambient temperature for 30 min. To the reaction mixture was added a solution of CuCl (460.8 mg) in conc. HCl (3.0 mL) and the mixture was stirred at 80 °C for 6 hr. The reaction mixture was alkalized with 1M aqueous NaOH and the aqueous layer was extracted with CHCl₃ (three times).

- 20 The combined organic layer was dried over MgSO₄, filtered, concentrated, and purified by flash chromatography (NH-silica gel, 20% EtOAc in hexane and silica gel, 2% MeOH in CHCl₃) to give 5-chloro-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide (52.3 mg) as a yellow solid.
- ESI MS m/e 395, M (free) + H⁺; ¹H NMR (300 MHz, CDCl₃) 8 1.65-2.03 (m, 8 H), 2.57 (s, 3 H), 4.03-4.29 (m, 2 H), 5.05 (brs, 1 H), 6.33-6.44 (m, 1 H), 6.53 (s, 1 H), 7.19-7.28 (m, 1 H), 7.48-7.56 (m, 1 H), 7.61-7.67 (m, 1 H), 7.73-7.79 (m, 1 H), 8.08-8.13 (m, 1 H), 8.66 (d, *J* = 2.3 Hz, 1 H), 8.83 (d, *J* = 1.9 Hz, 1 H).

Example 3397

5-Fluoro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide

5 Step A: Synthesis of 5-fluoro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide.

To a solution of 5-amino-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]nicotinamide obtained in step B of example 3396 (500 mg) in 48% aqueous HBF₄ (3.95 mL) and
EtOH (4.00 mL) was added CuF₂ (132.0 mg) at ambient temperature. To the reaction mixture was

10 added a solution of NaNO₂ (183.5 mg) in H₂O (3.95 mL) and the mixture was stirred at ambient
temperature for 1 hr. Then the mixture was stirred at 50°C for 2 hr and 80°C for 2 hr. The reaction
mixture was alkalized with 1M aqueous NaOH and the aqueous layer was extracted with EtOAc (three
times). The combined organic layer was dried over MgSO₄, filtered, concentrated, and purified by
flash chromatography (NH-silica gel, 50% EtOAc in hexane) to give

15 5-fluoro-*N*-[*cis*-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide (20.9 mg) as a yellow amorphous.

ESI MS m/e 379, M (free) + H⁺; 1 H NMR (300 MHz, CDCl₃) δ 1.67-2.05 (m, 8 H), 2.57 (s, 3 H), 4.08-4.25 (m, 2 H), 4.72 (brs, 1 H), 6.17-6.29 (m, 1 H), 6.52 (s, 1 H), 7.19-7.28 (m, 1 H), 7.48-7.57 (m, 1 H), 7.62-7.69 (m, 1 H), 7.73-7.80 (m, 1 H), 7.82-7.91 (m, 1 H), 8.60 (d, J = 2.8 Hz, 1 H), 8.76 (t, J = 1.5 Hz, 1 H).

Example 3398

3-chloro-N-[cis-4-(4-dimethylamino-5-methyl-pyrimidin-2-ylamino)-cyclohexyl]-4-fluoro-

25 benzamide methanesulfonic acid

Step A: Synthesis of 3-chloro-N-[cis-4-(4-dimethylamino-5-methyl-pyrimidin-2-ylamino)-cyclohexyl]-4-fluoro-benzamide methanesulfonic acid.

795

To a solution of *N*-(*cis*-4-amino-cyclohexyl)-3-chloro-4-fluoro-benzamide obtained in step A of example 3228 (1.76 g) in BuOH (2.5 mL) was added 2-chloro-4-dimethylamino-5-methylpyrimidine obtained in step A of example 3119 (1.00 g). The mixture was heated in a microwave synthesizer at 200°C for 15 min. The reaction was repeated 3 more times and the reaction 5 mixtures were pooled. The mixture was poured into saturated aqueous NaHCO₃ and the aqueous layer was extracted with CHCl₃ (three times). The combined organic layer was dried over MgSO₄, filtrated, concentrated under reduced pressure, and purified by medium-pressure liquid chromatography (NH-silica gel, 15% to 80% EtOAc in nexane) to give a colorless solid. To a solution of the above solid (1.85 g) in EtOH (18 mL) was added MsOH (460 mg). The mixture was stirred at ambient temperature for 30 min and stirred on an ice-bath for 4 hr. The precipitate was collected by filtration, washed with EtOH, and dried at 80°C under reduced pressure to give 3-chloro-*N*-[*cis*-4-(4-dimethylamino-5-methyl-pyrimidin-2-ylamino)-cyclohexyl]-4-fluoro-benzamide methanesulfonic acid (1.41 g) as a white solid.

ESI MS m/e 406, M (free) + H⁺; ¹H NMR (300 MHz, CDCl₃) δ 1.60-2.03 (m, 8 H), 2.25 (s, 3 H), 2.89

15 (s, 3 H), 3.30 (s, 6 H), 4.07-4.30 (m, 2 H), 7.13-7.29 (m, 2 H), 7.38-7.49 (m, 1 H), 7.81-7.89 (m, 1

H), 7.96-8.05 (m, 1 H), 8.07 (dd, J = 7.1, 2.3 Hz, 1 H), 12.07-12.23 (m, 1 H).

796

Assay Procedures

Example 3399

ASSAY FOR DETERMINATION OF CONSTITUTIVE ACTIVITY OF GPCRS

A. Intracellular IP3 Accumulation Assay

On day 1, cells to be transfected can be plated onto 24 well plates, usually 1x10⁵ cells/well 5 (although his umber can be optimized. On day 2 cells can be transfected by firstly mixing 0.25ug DNA (e.g., pCMV vector or pCMV vector comprising polynucleotide enocoding receptor) in 50 ul serum free DMEM/well and 2 ul lipofectamine in 50 µl serum-free DMEM/well. The solutions are gently mixed and incubated for 15-30 min at room temperature. Cells are washed with 0.5 ml PBS 10 and 400 µl of serum free media is mixed with the transfection media and added to the cells. The cells are then incubated for 3-4 hrs at 37°C/5%CO₂ and then the transfection media is removed and replaced with 1ml/well of regular growth media. On day 3 the cells are labeled with ³H-myo-inositol. Briefly, the media is removed and the cells are washed with 0.5 ml PBS. Then 0.5 ml inositol-free/serum free media (GIBCO BRL) is added/well with 0.25 μCi of ³H-myo-inositol/ well and the cells are incubated for 16-18 hrs o/n at 37°C/5%CO₂ On Day 4 the cells are washed with 0.5 ml PBS and 0.45 ml of assay medium is added containing inositol-free/serum free media 10µM pargyline 10 mM lithium chloride or 0.4 ml of assay medium and 50 ul of 10x ketanserin (ket) to final concentration of 10µM. The cells are then incubated for 30 min at 37°C. The cells are then washed with 0.5 ml PBS and 200 ul of fresh/ice cold stop solution (1M KOH; 18 mM Na-borate; 3.8 20 mM EDTA) is added/well. The solution is kept on ice for 5-10 min or until cells were lysed and then neutralized by 200 µl of fresh/ice cold neutralization sol. (7.5 % HCL). The lysate is then transferred into 1.5 ml eppendorf tubes and 1 ml of chloroform/methanol (1:2) is added/tube. The solution is vortexed for 15 sec and the upper phase is applied to a Biorad AG1-X8™ anion exchange resin (100-200 mesh). Firstly, the resin is washed with water at 1:1.25 W/V and 0.9 ml of upper phase is 25 loaded onto the column. The column is washed with 10 mls of 5 mM myo-inositol and 10 ml of 5 mM Na-borate/60mM Na-formate. The inositol tris phosphates are eluted into scintillation vials containing 10 ml of scintillation cocktail with 2 ml of 0.1 M formic acid/ 1 M ammonium formate. The columns are regenerated by washing with 10 ml of 0.1 M formic acid/3M ammonium formate

797

and rinsed twice with H₂O and stored at 4°C in water.

Example 3400

High Throughput Functional Screening: FLIPR™

Subsequently, a functional based assay was used to confirm the lead hits, referred to as FLIPRTM (the Fluorometric Imaging Plate Reader) and FDSS6000TM (Functional Drug Screening System). This assay utilized a non-endogenous, constitutively active version of the MCH receptor.

The FLIPR and FDSS assays are able to detect intracellular Ca²⁺ concentration in cells, which can be utilized to assess receptor activation and determine whether a candidate compound is an, for example, antagonist, inverse agonist or agonist to a Gq-coupled receptor. The concentration of free Ca²⁺ in the cytosol of any cell is extremely low, whereas its concentration in the extracellular fluid and endoplasmic reticulum (ER) is very high. Thus, there is a large gradient tending to drive Ca²⁺ into the cytosol across both the plasma membrane and ER. The FLIPRTM and FDSS6000TM systems (Molecular Devices Corporation, HAMAMATSU Photonics K.K.) are designed to perform functional cell-based assays, such as the measurement of intracellular calcium for high-throughput screening. The measurement of fluorescent is associated with calcium release upon activation of the Gq-coupled receptors. Gi or Go coupled receptors are not as easily monitored through the FLIPRTM and FDSS6000TM systems because these G proteins do not couple with calcium signal pathways.

Fluorometric Imaging Plate Reader system was used to allow for rapid, kinetic

20 measurements of intracellular fluorescence in 96 well microplates (or 384 well microplates).

Simultaneous measurements of fluorescence in all wells can be made by FLIPR or FDSS6000TM

every second with high sensitivity and precision. These systems are ideal for measuring cell-based functional assays such as monitoring the intracellular calcium fluxes that occur within seconds after activation of the Gq coupled receptor.

Briefly, the cells are seeded into 96 well at 5.5x10⁴ cells/well with complete culture media (Dulbecco's Modified Eagle Medium with 10 % fetal bovine serum, 2 mM L-glutamine, 1 mM sodium pyruvate and 0.5 mg/ml G418, pH 7.4) for the assay next day. On the day of assay, the media is removed and the cells are incubated with 100 µl of loading buffer (4 µM Fluo4-AM in complete

culture media containing 2.5 mM Probenicid, 0.5 mg/ml and 0.2% bovine serum albumin) in 5% CO₂ incubator at 37°C for 1 hr. The loading buffer is removed, and the cells are washed with wash buffer (Hank's Balanced Salt Solution containing 2.5 mM Probenicid, 20 mM HEPES, 0.5 mg/ml and 0.2% bovine serum albumin, pH 7.4)). One hundred fifty µl of wash buffer containing various

- 5 concentrations of test compound is added to the cells, and the cells are incubated in 5% CO₂ incubator at 37°C for 30 min. Fifty μl of wash buffer containing various concentration of MCH are added to each well, and transient changes in [Ca²⁺]i evoked by MCH are monitored using the FLIPR or FDSS in 96 well plates at Ex. 488 nm and Em. 530 nm for 290 second. When antagonist activity of compound is tested, 50 nM of MCH is used.
- 10 Use of FLIPR™ and FDSS6000™ can be accomplished by following manufacturer's instruction (Molecular Device Corporation and HAMAMATSU Photonics K.K.).

Representative examples are shown below.

Compound No.	IC ₅₀ (nM)
Example 7	11
Example 15	19
Example 19	21
Example 2524	2.1
Example 2526	7.6

15

20

The results were shown on the tables in the Examples section and the table in the next page in accordance with the classification as defined below.

Class 1 : The value of percent of control at 10^{-7} M was less than 40% or the value of IC₅₀ was less than 50 nM.

Class 2: The value of percent of control at 10⁻⁷ M was from 40% to 60% or the value of IC₅₀

799

was from 50 nM to 200 nM.

Class 3 : The value of percent of control at 10^{-7} M was more than 60% or the value of IC₅₀ was more than 200 nM.

The compounds in Examples 2497 to 2542, 2588 to 2689, and 3241 to 3259 were tested and they showed IC $_{50}$ activities less than about 50 μ M.

Ex. No.	class										
1	2	3058	1	3104	2	3150	3	3196	2	3384	1
2	2	3059	1	3105	2	3151	1	3197	2	3385	ļ
3	1	3060	2	3106	1	3152	1	3198	1	3386	1
4	1	3061	1	3107	1	3153	1	3199	1	3387	1
5	2	3062	1	3108	1	3154	1	3200	3	3388	1
6	2	3063	1	3109	1	3155	3	3201	1	3389	1
7	1	3064	1	3110	1	3156	3	3202	1	3390	1
8	1	3065	1	3111	1	3157	2	3203	1	3391	1
9	3	3066	1	3112	1	3158	1	3204	2	3392	3
10	2	3067	2	3113	3	3159	1	3205	2	3393	1
11	1	3068	2	3114	1	3160	1	3206	1	3394	1
12	2	3069	2	3115	1	3161	2	3207	1	3395	1
13	3	3070	1	3116	3	3162	2	3208	3	3396	1
14	1	3071	1	3117	1	3163	1	3209	3	3397	1
15	1	3072	1	3118	3	3164	2	3210	3	3398	1
16	1	3073	1	3119	1	3165	2	3211	1		
17	2	3074	1	3120	1	3166	1	3212	3		
18	1	3075	1	3121	1	3167	1	3213	3		
19	1 ·	3076	1	3122	1	3168	1	3214	2		

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3031	1	3077	1	3123	1	3169	1	3215	2
3032	1	3078	1	3124	1	3170	1	3216	1
3033	1	3079	1	3125	1	3171	2	3217	1
3034	1	3080	1	3126	1	3172	1	3218	3
3035	1	3081	1	3127	1	3173	3	3219	2
3036	1	3082	1	3128	1	3174	1	3220	1
3037	3	3083	1	3129	2	3175	1	3221	1
3038	1	3084	1	3130	3	3176	2	3222	1
3039	1	3085	1	3131	3	3177	2	3223	3
3040	1	3086	1	3132	3	3178	2	3224	2
3041	1	3087	1	3133	3	3179	1	3225	3
3042	1	3088	1	3134	3	3180	1	3226	3
3043	1	3089	1	3135	3	3181	2	3227	3
3044	2	3090	1	3136	3	3182	3	3228	1
3045	1	3091	1	3137	2	3183	3	3229	1
3046	1	3092	1	3138	2	3184	2	3230	1
3047	1	3093	1	3139	2	3185	1	3231	2
3048	1	3094	1	3140	2	3186	2	3232	2
3049	1	3095	1	3141	2	3187	3	3233	3
3050	1	3096	1	3142	3	3188	1	3234	3
3051	1	3097	1	3143	3	3189	1	3235	1
3052	1	3098	1	3144	3	3190	2	3236	3
3053	1	3099	1	3145	3	3191	2	3237	3
3054	1	3100	1	3146	1	3192	1	3238	1
3055	1	3101	1	3147	2	3193	1	3239	1
3056	1	3102	1	3148	3	3194	1	3240	1
3057	1	3103	2	3149	2	3195	2	3383	1

Example 3401

Receptor Binding Assay

In addition to the methods described herein, another means for evaluating a test compound is by determining binding affinities to the MCH receptor. This type of assay generally requires a radiolabelled ligand to the MCH receptor. Absent the use of known ligands for the MCH receptor and radiolabels thereof, compounds of Formula (I) can be labelled with a radioisotope and used in an assay for evaluating the affinity of a test compound to the MCH receptor.

A radiolabelled MCH compound of Formula (I) can be used in a screening assay to identify/evaluate compounds. In general terms, a newly synthesized or identified compound (i.e., test compound) can be evaluated for its ability to reduce binding of the "radiolabelled compound of Formula (I)" to the MCH receptor. Accordingly, the ability to compete with the "radio-labelled compound of Formula (I)" or Radiolabelled MCH Ligand for the binding to the MCH receptor directly correlates to its binding affinity of the test compound to the MCH receptor.

15 ASSAY PROTOCOL FOR DETERMINING RECEPTOR BINDING FOR MCH:

A. MCH RECEPTOR PREPARATION

293 cells (human kidney, ATCC), transiently transfected with 10 ug human MCH receptor and 60 ul Lipofectamine (per 15-cm dish), are grown in the dish for 24 hours (75% confluency) with a media change and removed with 10 ml/dish of Hepes-EDTA buffer (20mM Hepes + 10 mM EDTA, pH 7.4). The cells are then centrifuged in a Beckman Coulter centrifuge for 20 minutes, 17,000 rpm (JA-25.50 rotor). Subsequently, the pellet is resuspended in 20 mM Hepes + 1 mM EDTA, pH 7.4 and homogenized with a 50- ml Dounce homogenizer and again centrifuged. After removing the supernatant, the pellets can be stored at -80°C, until used in binding assay. When used in the assay, membranes are thawed on ice for 20 minutes and then 10 mL of incubation buffer (20 mM Hepes, 1 mM MgCl₂, 100 mM NaCl, pH 7.4) added. The membranes are then vortexed to resuspend the crude membrane pellet and homogenized with a Brinkmann PT-3100 Polytron homogenizer for 15 seconds at setting 6. The concentration of membrane protein is determined using the BRL Bradford protein assay.

B. BINDING ASSAY

For total binding, a total volume of 50ul of appropriately diluted membranes (diluted in assay buffer containing 50mM Tris HCl (pH 7.4), 10mM MgCl₂, and 1mM EDTA; 5-50ug protein) is added to 96-well polyproylene microtiter plates followed by addition of 100ul of assay buffer and 50ul of Radiolabelled MCH Ligand. For nonspecific binding, 50 ul of assay buffer is added instead of 100ul and an additional 50ul of 10uM cold MCH is added before 50ul of Radiolabelled MCH Ligand is added. Plates are then incubated at room temperature for 60-120 minutes. The binding reaction is terminated by filtering assay plates through a Microplate Devices GF/C Unifilter filtration plate with a Brandell 96-well plate harvestor followed by washing with cold 50 mM Tris HCl, pH 7.4 containing 0.9% NaCl. Then, the bottom of the filtration plate are sealed, 50 µl of Optiphase Supermix is added to each well, the top of the plates are sealed, and plates are counted in a Trilux MicroBeta scintillation counter. For compound competition studies, instead of adding 100 µl of assay buffer, 100 µl of appropriately diluted test compound is added to appropriate wells followed by addition of 50 µl of Radiolabelled MCH Ligand.

C. CALCULATIONS

The test compounds are initially assayed at 1 and 0.1 μM and then at a range of concentrations chosen such that the middle dose would cause about 50% inhibition of a

20 Radiolabelled MCH Ligand binding (i.e., IC₅₀). Specific binding in the absence of test compound (B_O) is the difference of total binding (B_T) minus non-specific binding (NSB) and similarly specific binding (in the presence of test compound) (B) is the difference of displacement binding (B_D) minus non-specific binding (NSB). IC₅₀ is determined from an inhibition response curve, logit-log plot of % B/B_O vs concentration of test compound.

25 K_i is calculated by the Cheng and Prustoff transformation:

$$K_i = IC_{50} / (1 + [L]/K_D)$$

wherein [L] is the concentration of a Radiolabelled MCH Ligand used in the assay and K_D is the dissociation constant of a Radiolabelled MCH Ligand determined independently under the

803

same binding conditions.

It is intended that each of the patents, applications, printed publications, and other published documents mentioned or referred to in this specification be herein incorporated by reference in their entirety.

Those skilled in the art will appreciate that numerous changes and modifications may be made to the preferred embodiments of the invention and that such changes and modifications may be made without departing from the spirit of the invention. It is therefore intended that the appended claims cover all such equivalent variations as fall within the true spirit and scope of the invention.

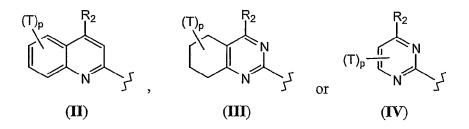
804

CLAIMS

1. A compound of Formula (I):



wherein Q is:



R₁ is selected from the group consisting of:

(i) C₁₋₁₆ alkyl, and

 C_{1-16} alkyl substituted by substituent(s) independently selected from the group consisting of:

- •halogen,
- •hydroxy,
- •oxo,
- •C₁₋₅ alkoxy,
- ${}^{\bullet}C_{1-5}$ alkoxy substituted by substituent(s) independently selected from the group consisting of:
 - oocarbocyclic aryl,
 - ··heterocyclyl, and
 - ••heterocyclyl substituted by C₁₋₅ alkyl,
- •C₁₋₅ alkylcarbonyloxy,

805

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·carbocyclyloxy,
ocarbocyclic aryloxy,
ocarbocyclic aryloxy substituted by substituent(s) independently selected
from the group consisting of:
         oohalogen,
         oohydroxy,
         ••carboxy,
         eecarbamoyl,
         ••nitro,
         ••cyano,
         ••amino,
         ••carbocyclic aryl,
         ••carbocyclic aryl substituted by C<sub>1-5</sub> alkoxy,
         ••C<sub>1-5</sub> alkoxy,
         ••C<sub>1-5</sub> alkoxy substituted by halogen,
         ••C<sub>1-5</sub> alkyl, and
         ••C<sub>1-5</sub> alkyl substituted by substituent(s) independently selected
         from the group consisting of:
                   •••halogen,
                   •••hydroxy,
                   •••carboxy,
                   •••oxo,
                   •••mono-C<sub>1-5</sub> alkylamino,
                   •••di-C<sub>1-5</sub> alkylamino,
                   •••mono-C<sub>1-5</sub> alkylamino substituted by carbocyclic aryl,
                   \circ \circ \circ di-C_{1-5} alkylamino substituted by carbocyclic aryl,
                   •••mono-C<sub>1-5</sub> alkylamino substituted by halogenated
```

carbocyclic aryl,

806

•••di-C₁₋₅ alkylamino substituted by halogenated carbocyclic aryl,

ooocarbocyclic arylcarbonylamino, and

oocarbocyclic arylcarbonylamino substituted by halogen,

•heterocyclyloxy,

•heterocyclyloxy substituted by substituent(s) independently selected from the group consisting of:

- ••halogen,
- ••hydroxy,
- ••carboxy,
- ••carbamoyl,
- ••nitro,
- ••cyano,
- ••amino,
- ••carbocyclic aryl,
- --carbocyclic aryl substituted by C_{1-5} alkoxy,
- ••C₁₋₅ alkoxy,
- ••C₁₋₅ alkoxy substituted by substituent(s) independently selected from the group consisting of:
 - •••halogen,
 - •••hydroxy, and
 - •••carboxy,
- ••C₁₋₅ alkyl, and
- $^{\circ \circ}C_{1\text{--}5}$ alkyl substituted by substituent(s) independently selected . from the group consisting of:
 - •••halogen,
 - •••hydroxy, and
 - •••carboxy,

807

- •substituted heterocyclyl-ethylideneaminooxy,
- ∘C₁₋₅ alkoxycarbonyl,
- $\circ C_{1-5}$ alkoxycarbonyl substituted by carbocyclic aryl,
- omono-C₁₋₅ alkylaminocarbonyl,
- •di-C₁₋₅ alkylaminocarbonyl,
- omono-C₁₋₅ alkylamino,
- •mono-C₁₋₅ alkylamino substituted by substituent(s) independently selected from the group consisting of:
 - ••cyano,
 - ••carbocyclic aryl, and
 - ••heterocyclyl,
- •di-C₁₋₅ alkylamino,
- •di-C₁₋₅ alkylamino substituted by substituent(s) independently selected from the group consisting of:
 - ••cyano,
 - ••carbocyclic aryl, and
 - ••heterocyclyl,
- •mono-carbocyclic arylamino,
- •mono-carbocyclic arylamino substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen,
 - ••hydroxy,
 - ••carboxy,
 - ocarbamoyl,
 - ••nitro,
 - ∘∘cyano,
 - ••amino,
 - ••carbocyclic aryl,

808

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••carbocyclic aryl substituted by C<sub>1-5</sub> alkoxy,
         ∞C<sub>1-5</sub> alkoxy,
         °C<sub>1-5</sub> alkoxy substituted by substituent(s) independently selected
         from the group consisting of:
                  oohalogen,
                  ooohydroxy, and
                  •••carboxy,
         ••C<sub>1-5</sub> alkyl, and
         ••C<sub>1-5</sub> alkyl substituted by substituent(s) independently selected
         from the group consisting of:
                  •••halogen,
                  •••hydroxy, and
                  •••carboxy,
•di-carbocyclic arylamino,
•di-carbocyclic arylamino substituted by substituent(s) independently
selected from the group consisting of:
         ••halogen,
         ••hydroxy,
         ••carboxy,
         ••carbamoyl,
         ••nitro,
         ••cyano,
         ••amino,
         ocarbocyclic aryl,
         \circ \circ carbocyclic aryl substituted by C_{1-5} alkoxy,
         ∘∘C<sub>1-5</sub> alkoxy,
         ••C<sub>1-5</sub> alkoxy substituted by substituent(s) independently selected
         from the group consisting of:
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809

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•••halogen,
                  ooohydroxy, and
                  oocarboxy,
         \circ \circ C_{1-5} alkyl, and
         °°C<sub>1-5</sub> alkyl substituted by substituent(s) independently selected
         from the group consisting of:
                  •••halogen,
                  •••hydroxy, and
                  •••carboxy,
•mono-heterocyclylamino,
•mono-heterocyclylamino substituted by substituent(s) independently
selected from the group consisting of:
         ••halogen,
         ••hydroxy,
         ••carboxy,
         ••carbamoyl,
         ••nitro,
         ••cyano,
         ••amino,
         ··carbocyclic aryl,
         ••carbocyclic aryl substituted by C<sub>1-5</sub> alkoxy,
         ••C<sub>1-5</sub> alkoxy,
         ••C<sub>1-5</sub> alkoxy substituted by substituent(s) independently selected
         from the group consisting of:
                  •••halogen,
                  ooohydroxy, and
                  •••carboxy,
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••C₁₋₅ alkyl, and

810

••C₁₋₅ alkyl substituted by substituent(s) independently selected from the group consisting of:

ooohalogen,

ooohydroxy, and

•••carboxy,

odi-heterocyclylamino,

•di-heterocyclylamino substituted by substituent(s) independently selected from the group consisting of:

- ••halogen,
- ••hydroxy,
- ••carboxy,
- ••carbamoyl,
- ••nitro,
- ••cyano,
- ••amino,
- ••carbocyclic aryl,
- ••carbocyclic aryl substituted by C₁₋₅ alkoxy,
- ••C₁₋₅ alkoxy,
- ${f \cdot \cdot}$ C₁₋₅ alkoxy substituted by substituent(s) independently selected from the group consisting of:
 - •••halogen,
 - •••hydroxy, and
 - · · · carboxy,
- ••C₁₋₅ alkyl, and
- ••C₁₋₅ alkyl substituted by substituent(s) independently selected from the group consisting of:
 - •••halogen,
 - •••hydroxy, and

•••carboxy,

- °C₁₋₅ alkylcarbonylamino,
- °C₁₋₅ alkylcarbonylamino substituted by substituent(s) independently selected from the group consisting of:
 - $\circ \circ C_{1-5}$ alkylcarbonylamino,
 - ocarbocyclic arylcarbonylamino, and
 - ••heterocyclyl,
- •C₁₋₅ alkoxycarbonylamino,
- •carbocyclic arylcarbonylamino,
- •heterocyclyl carbonylamino,
- •carbocyclic arylsulfonylamino,
- •carbocyclic arylsulfonylamino substituted by substituent(s) independently selected from the group consisting of:
 - ••nitro,
 - ••C₁₋₅ alkyl,
 - ••mono-C₁₋₅ alkylamino, and
 - ••di-C₁₋₅ alkylamino,
- •C₁₋₅ alkylthio,
- •C₁₋₅ alkylthio substituted by substituent(s) independently selected from the group consisting of:
 - ••mono-carbocyclic arylaminocarbonyl,
 - mono-carbocyclic arylaminocarbonyl substituted by halogen,
 - ··di-carbocyclic arylaminocarbonyl,
 - oodi-carbocyclic arylaminocarbonyl substituted by halogen,
 - oomono-carbocyclic arylamino,
 - oomono-carbocyclic arylamino substituted by halogen,
 - ··di-carbocyclic arylamino,
 - ••di-carbocyclic arylamino substituted by halogen,

812

••carbocyclic aryl, and

••carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

ooohalogen, and

∞∞C₁₋₅ alkoxy,

ocarbocyclic arylthio,

•carbocyclic arylthio substituted by substituent(s) independently selected from the group consisting of:

- ••halogen,
- ••C₁₋₅ alkyl, and
- ••C₁₋₅ alkyl substituted by halogen,
- ·carbocyclic arylsulfinyl,
- •carbocyclic arylsulfinyl substituted by substituent(s) independently selected from the group consisting of:
 - ··halogen,
 - ••C₁₋₅ alkyl, and
 - ••C₁₋₅ alkyl substituted by halogen,
- •carbocyclic arylsulfonyl,
- •carbocyclic arylsulfonyl substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen,
 - •• C_{1-5} alkyl, and
 - ••C₁₋₅ alkyl substituted by halogen,
- ·heterocyclylthio,
- •heterocyclylthio substituted by substituent(s) independently selected from the group consisting of:
 - ••nitro, and
 - ••C₁₋₅ alkyl,

- •C₃₋₆ cycloalkyl,
- ${}^{\circ}C_{3-6}$ cycloalkyl substituted by C_{1-5} alkyl,
- °C₃₋₆ cycloalkyl substituted by carbocyclic aryl,
- °C₃₋₆ cycloalkenyl,
- ocarbocyclyl,
- °carbocyclyl substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen,
 - ••C₁₋₅ alkyl,
 - ••C₁₋₅ alkoxy,
 - •• C_{2-5} alkenyl, and
 - ••C₂₋₅ alkenyl substituted by substituent(s) independently selected from the group consisting of:
 - •••carbocyclic aryl, and
 - •••carbocyclic aryl substituted by C₁₋₅ alkylsulfinyl,
- •carbocyclic aryl,
- •carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen,
 - ••hydroxy,
 - ••carboxy,
 - ••carbamoyl,
 - ••cyano,
 - oonitro,
 - ••amino,
 - ∘∘C₁₋₅ alkylcarbonylamino,
 - ••C₃₋₆ cycloalkylcarbonylamino,
 - ••C₁₋₅ alkyl,

814

•• C_{1-5} alkyl substituted by substituent(s) independently selected from the group consisting of:

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ooohalogen,
•••hydroxy,
•••carboxy,
ooocarbamoyl,
•••0XO,
•••carbocyclic aryl,
•••heterocyclyl,
•••mono-carbocyclic arylamino,
•••di-carbocyclic arylamino,
•••mono-carbocyclic arylamino substituted by
substituent(s) independently selected from the group
consisting of:
        ••••halogen,
        ••••nitro,
        ••••C<sub>1-5</sub> alkyl,
        ••••C_{1-5} alkoxy, and
        •••••C<sub>1-5</sub> alkoxy substituted by halogen,
•••di-carbocyclic arylamino substituted by substituent(s)
independently selected from the group consisting of:
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••••halogen,
••••halogen,
••••C₁₋₅ alkyl,
••••C₁₋₅ alkoxy, and
••••C₁₋₅ alkoxy substituted by halogen,

- ••C₂₋₅ alkenyl,
- ••C₁₋₅ alkoxy,

815

••• C_{1-5} alkyl,

•••C₁₋₅ alkoxy, and

••C₁₋₅ alkoxy substituted by substituent(s) independently selected from the group consisting of: ooohalogen, and ooocarbocyclic aryl, ocarbocyclic aryloxy, ∘∘C₁₋₅ alkoxycarbonyl, ••C₁₋₅ alkylcarbonyloxy, ••mono-C₁₋₅ alkylamino, ••di-C₁₋₅ alkylamino, ••mono-carbocyclic arylamino, ••mono-carbocyclic arylamino substituted by halogen, ··di-carbocyclic arylamino, ••di-carbocyclic arylamino substituted by halogen, ••mono-carbocyclic arylaminocarbonyl, ••mono-carbocyclic arylaminocarbonyl substituted by substituent(s) selected from the group consisting of: •••halogen, •••nitro, •••C₁₋₅ alkyl, •••C₁₋₅ alkoxy, and •••C₁₋₅ alkoxy substituted by halogen, ··di-carbocyclic arylaminocarbonyl, ••di-carbocyclic arylaminocarbonyl substituted by substituent(s) selected from the group consisting of: •••halogen, ooonitro,

816

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•••C<sub>1-5</sub> alkoxy substituted by halogen,
          oomercapto,
         ∘∘C<sub>1-5</sub> alkylthio,
         °°C<sub>1-5</sub> alkylthio substituted by halogen,
         ∞C<sub>1-5</sub> alkylsulfonyl,
         °°C<sub>3-6</sub> cycloalkyl,
         ••carbocyclic aryl, and
         ••heterocyclyl,
•heterocyclyl, and
•heterocyclyl substituted by substituent(s) independently selected from the
group consisting of:
         ••halogen,
         ••hydroxy,
         ••carboxy,
         ••carbamoyl,
         ••cyano,
         ••nitro,
         ••amino,
         ••C<sub>1-5</sub> alkyl,
         ••C<sub>1-5</sub> alkyl substituted by substituent(s) independently selected
         from the group consisting of:
                   •••halogen,
                   •••hydroxy,
                   •••carboxy, and
                   •••carbamoyl,
         ∘∘C<sub>1-5</sub> alkyl substituted by carbocyclic aryl,
         ••C<sub>1-5</sub> alkoxy,
         ••C<sub>1-5</sub> alkoxy substituted by halogen,
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817

- ••C₁₋₅ alkoxy substituted by carbocyclic aryl,
- oocarbocyclic aryl, and
- oocarbocyclic aryl substituted by halogen,
- (ii) C₂₋₈ alkenyl, and

 C_{2-8} alkenyl substituted by substituent(s) independently selected from the group consisting of:

- •halogen,
- °OXO,
- •C₁₋₅ alkoxy,
- •C₁₋₅ alkoxy substituted by carbocyclic aryl,
- •carbocyclic aryl,
- •carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen,
 - ••hydroxy,
 - ••nitro,
 - ••C₁₋₅ alkyl,
 - ••C₁₋₅ alkyl substituted by halogen,
 - ••C₁₋₅ alkoxy, and
 - ••C₁₋₅ alkoxy substituted by halogen,
- •heterocyclyl, and
- •heterocyclyl substituted by substituent(s) independently selected from the group consisting of:
 - ••hydroxy,
 - oonitro,
 - ∞C₁₋₅ alkyl, and
 - •• C_{1-5} alkoxy,
- (iii) C₂₋₅ alkynyl, and

WO 2004/087669

C₂₋₅ alkynyl substituted by carbocyclic aryl,

(iv) C₃₋₁₂ cycloalkyl, and

C₃₋₁₂ cycloalkyl substituted by substituent(s) independently selected from the group consisting of:

°C₁₋₅ alkyl,

°C₁₋₅ alkyl substituted by substituent(s) independently selected from the group consisting of:

- ••hydroxy,
- ••oxo, and
- ••carbocyclic aryl,
- •mono-C₁₋₅ alkylamino,
- •mono-C₁₋₅ alkylamino substituted by carbocyclic aryl,
- •di-C₁₋₅ alkylamino,
- •di-C₁₋₅ alkylamino substituted by carbocyclic aryl,
- •carbocyclic arylcarbonylamino,
- •carbocyclic aryl, and
- •carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen,
 - ••C₁₋₅ alkoxy,
 - $\bullet \bullet C_{1-5}$ alkyl, and
 - ${f \cdot \cdot }$ C₁₋₅ alkyl substituted by halogen,
- (v) C₃₋₆ cycloalkenyl, and

 C_{3-6} cycloalkenyl substituted by C_{1-5} alkyl,

- (vi) carbocyclyl, andcarbocyclyl substituted by substitutent(s) independently selected from thegroup consisting of:
 - hydroxy, and

819

•nitro,

(vii) carbocyclic aryl, andcarbocyclic aryl substituted by substituent(s) independently selected fromthe group consisting of:

•halogen,

ohydroxy,

ecyano,

•nitro,

 \cdot C₁₋₁₀ alkyl,

•C₁₋₁₀ alkyl substituted by substituent(s) independently selected from the group consisting of:

- ••halogen,
- ••hydroxy,
- ••carboxy,
- ••carbamoyl,
- ••oxo,
- ••C₁₋₅ alkoxy,
- ••carbocyclic aryloxy,
- ••mono-C₁₋₅ alkylamino-N-oxy,
- ••di-C₁₋₅ alkylamino-N-oxy,
- ••mono-C₁₋₅ alkylamino,
- ••di-C₁₋₅ alkylamino,
- ••mono-C₁₋₅ alkylamino substituted by carbocyclic aryl,
- ••di-C₁₋₅ alkylamino substituted by carbocyclic aryl,
- ••mono-carbocyclic arylamino,
- oodi-carbocyclic arylamino,
- ••carbocyclylimino,
- ••carbocyclylimino substituted by carbocyclic aryl,

820

••halogenated carbocyclic aryl,

```
••mono-carbocyclic arylamino,
         odi-carbocyclic arylamino,
         ∘∘mono-carbocyclic arylamino substituted by C<sub>1-5</sub> alkoxy,
         \circ \circdi-carbocyclic arylamino substituted by C_{1-5} alkoxy,
         oomono-carbocyclic arylaminocarbonyl,
         oodi-carbocyclic arylaminocarbonyl,
         ••mono-carbocyclic arylaminocarbonyl substituted by C<sub>1-5</sub> alkoxy,
         **di-carbocyclic arylaminocarbonyl substituted by C<sub>1-5</sub> alkoxy,
         ••carbocyclic aryl,
         ••carbocyclic aryl substituted by substituent(s) independently
         selected from the group consisting of:
                  •••halogen,
                  •••C<sub>1-5</sub> alkyl, and
                  •••C<sub>1-5</sub> alkyl substituted by halogen,
         ··heterocyclyl, and
         ••heterocyclyl substituted by C<sub>1-5</sub> alkyl,
•C<sub>2-5</sub> alkenyl,
•C<sub>2-5</sub> alkenyl substituted by carbocyclic aryl,
•C<sub>1-9</sub> alkoxy,
•C<sub>1.9</sub> alkoxy substituted by substituent(s) independently selected from the
group consisting of:
         ••hydroxy,
         ••halogen,
         oocarboxy,
         ∞mono-C<sub>1-5</sub> alkylamino,
         oodi-C<sub>1-5</sub> alkylamino,
         ··carbocyclic aryl,
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821

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••heterocyclyl,
         ooheterocyclyl substituted by substituent(s) independently selected
         from the group consisting of:
                  ∘∘∘halogen,
                  •••heterocyclyl, and
                  oooheterocyclyl substituted by substituent(s) independently
                  selected from the group consisting of:
                           · · · halogen,
                           ••••C<sub>1-5</sub> alkyl, and
                           ••••C<sub>1-5</sub> alkyl substituted by halogen,
•C<sub>2-5</sub> alkenyloxy,
•C<sub>3-6</sub> cycloalkoxy,
{ullet} C_{1-5} alkylcarbonyloxy,
•carbocyclic aryloxy,
•carbocyclic aryloxy substituted by substituent(s) independently selected
from the group consisting of:
         ••halogen,
         ••hydroxy,
         ••carboxy,
         ••carbamoyl,
         ••cyano,
         ••nitro,
         ••amino,
         ∘∘C<sub>1-5</sub> alkyl,
         \circ \circ C_{1-5} alkyl substituted by substituent(s) independently selected
         from the group consisting of:
                  •••halogen,
                  •••hydroxy,
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822

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•••carboxy, and
                   oocarbamoyl,
         ∘∘C<sub>1-5</sub> alkoxy, and
         °°C<sub>1-5</sub> alkoxy substituted by halogen,
•heterocyclyloxy,
•heterocyclyloxy substituted by substituent(s) independently selected from
the group consisting of:
         ••halogen,
         ••hydroxy,
         ••carboxy,
         ••carbamoyl,
         ••cyano,
         ••nitro,
         ••amino,
         ••C<sub>1-5</sub> alkyl,
         ••C<sub>1-5</sub> alkyl substituted by substituent(s) independently selected
         from the group consisting of:
                   •••halogen,
                   •••hydroxy,
                   •••carboxy, and
                   •••carbamoyl,
         \bullet \bullet C_{1-5} alkoxy, and
         ••C<sub>1-5</sub> alkoxy substituted by halogen,
•(carbocyclic aryl)S(O)2O,
ocarboxy,
ocarbamoyl,
•C<sub>1-5</sub> alkoxycarbonyl,
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•mono-C₁₋₅ alkylaminocarbonyl,

- •di-C₁₋₅ alkylaminocarbonyl,
- •mono-C₁₋₅ alkylaminocarbonyl substituted by carbocyclic aryl,
- •di-C₁₋₅ alkylaminocarbonyl substituted by carbocyclic aryl,
- omono-carbocyclic arylaminocarbonyl,
- •di-carbocyclic arylaminocarbonyl,
- •mono-carbocyclic arylaminocarbonyl substituted by C₁₋₅ alkyl,
- •di-carbocyclic arylaminocarbonyl substituted by C₁₋₅ alkyl,
- •amino,
- •mono-C₁₋₅ alkylamino,
- •di-C₁₋₅ alkylamino,
- •mono-C₁₋₅ alkylamino substituted by cyano,
- •di-C₁₋₅ alkylamino substituted by cyano,
- •mono-carbocyclic arylamino,
- •di-carbocyclic arylamino,
- •C₁₋₅ alkylcarbonylamino,
- ${ullet} C_{3-6}$ cycloalkylcarbonylamino,
- •C₂₋₅ alkynylcarbonylamino,
- •C₂₋₅ alkynylcarbonylamino substituted by carbocyclic aryl,
- •C₁₋₅ alkoxycarbonylamino,
- •carbocyclic arylsulfonylamino,
- •carbocyclic arylsulfonylamino substituted by C₁₋₅ alkyl,
- •(carbocyclic aryl)NHC(O)NH,
- •(carbocyclic aryl)NHC(O)NH substituted by C₁₋₅ alkoxy,
- o(carbocyclic aryl)NHC(O)NH substituted by haloganated C₁₋₅ alkoxy,
- ocarbocyclic aryl azo,
- ocarbocyclic aryl azo substituted by mono-C₁₋₅ alkylamino,
- •carbocyclic aryl azo substituted by di-C₁₋₅ alkylamino,
- •C₁₋₅ alkylthio,

- •C₁₋₅ alkylthio substituted by halogen,
- ocarbocyclic arylthio,
- ocarbocyclic arylthio substituted by substituent(s) independently selected from the group consisting of:
 - oohalogen,
 - oonitro,
 - ••cyano, and
 - ••C₁₋₅ alkyl,
- •aminosulfonyl,
- •heterocyclylthio,
- •C₁₋₅ alkylsulfonyl,
- •mono-C₁₋₅ alkylaminosulfonyl,
- •di-C₁₋₅ alkylaminosulfonyl,
- •heterocyclylsulfonyl,
- •C₃₋₆ cycloalkyl,
- •C₃₋₆ cycloalkyl substituted by C₁₋₅ alkyl,
- •carbocyclic aryl,
- •carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
 - ••C₁₋₇ alkyl, and
 - ••C₁₋₇ alkyl substituted by halogen,
- ·heterocyclyl, and
- •heterocyclyl substituted by substituent(s) independently selected from the group consisting of:
 - ∘•C₁₋₅ alkyl,
 - ocarbocyclic aryl, and
 - ··halogenated carbocyclic aryl,
- •C₁₋₅ alkoxycarbonyl substituted by carbocyclic aryl, and

WO 2004/087669

(viii) heterocyclyl, and

heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

- •halogen,
- •hydroxy,
- ocarboxy,
- ·carbamoyl,
- °cyano,
- •nitro,
- •amino,
- •C₁₋₅ alkyl,
- •C₁₋₅ alkyl substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen,
 - ••hydroxy,
 - ••carboxy,
 - ••carbamoyl,
 - ••oxo,
 - ••C₁₋₅ alkylcarbonyloxy,
 - ··carbocyclic arylcarbonylamino,
 - ••carbocyclic arylcarbonylamino substituted by halogen,
 - ••C₁₋₅ alkoxycarbonyl,
 - ••C₁₋₅ alkylthio,
 - ••C₁₋₅ alkylthio substituted by carbocyclic aryl,
 - °°C₁₋₅ alkylthio substituted by halogenated carbocyclic aryl,
 - ocarbocyclic aryl,
 - ••carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

826

•••halogen, and

•••nitro,

ooheterocyclyl, and

••heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

•••halogen,

· · · C₁₋₅ alkyl, and

•••C₁₋₅ alkyl substituted by halogen,

•C₁₋₅ alkoxy,

•C₁₋₅ alkoxy substituted by halogen,

•C₁₋₅ alkoxy substituted by carbocyclic aryl,

•carbocyclic aryloxy,

•carbocyclic aryloxy substituted by substituent(s) independently selected from the group consisting of:

••halogen,

••nitro,

••cyano,

••hydroxy,

••carboxy,

••carbamoyl,

••amino,

••C₁₋₅ alkyl,

 $\bullet \bullet C_{1-5}$ alkyl substituted by substituent(s) independently selected from the group consisting of:

•••halogen,

•••hydroxy,

•••carboxy, and

•••carbamoyl,

827

- ••mono-C₁₋₅ alkylamino,
- ••di-C₁₋₅ alkylamino,
- ∘∘C₁₋₅ alkylcarbonylamino,
- °°C₃₋₆ cycloalkycarbonylamino,
- ∞C₁₋₅ alkoxy,
- ••C₁₋₅ alkoxy substituted by halogen,
- ••C₃₋₆ cycloalkyl,
- ∞C₂₋₅ alkenyl,
- •• C_{2-5} alkynyl,
- ••carboxy,
- ••C₁₋₅ alkoxycarbonyl,
- ••mono-C₁₋₅ alkylaminocarbonyl,
- ••di-C₁₋₅ alkylaminocarbonyl,
- ••mono-C₃₋₆ cycloalkylaminocarbonyl,
- ••di-C₃₋₆ cycloalkylaminocarbonyl,
- ••mono-C₁₋₅ alkylaminocarbonylamino,
- ••di-C₁₋₅ alkylaminocarbonylamino,
- ••mono-C₃₋₆ cycloalkylaminocarbonylamino,
- ••di-C₃₋₆ cycloalkylaminocarbonylamino,
- ••C₁₋₅ alkylthio,
- ••C₁₋₅ alkylthio substituted by halogen,
- ••C₁₋₅ alkylsulfinyl,
- ••C₁₋₅ alkylsulfinyl substituted by halogen,
- ••C₁₋₅ alkylsulfonyl, and
- ••C₁₋₅ alkylsulfonyl substituted by halogen,
- oheterocyclyloxy,
- •heterocyclyloxy substituted by substituent(s) independently selected from the group consisting of:

- ••halogen,
- onitro,
- oohydroxy,
- oocarboxy,
- oocarbamoyl,
- ∘∘cyano,
- ••amino,
- ••C₁₋₅ alkyl,
- ${\ensuremath{\bullet \bullet}} C_{1\text{--}5}$ alkyl substituted by substituent(s) independently selected

from the group consisting of:

- •••halogen,
- •••hydroxy,
- •••carboxy, and
- •••carbamoyl,
- ••C₁₋₅ alkoxy, and
- ••C₁₋₅ alkoxy substituted by halogen,
- •mono-C₁₋₅ alkylamino,
- •di-C₁₋₅ alkylamino,
- •mono-carbocyclic arylamino,
- •mono-carbocyclic arylamino substituted by halogen,
- •C₁₋₅ alkylcarbonylamino,
- •C₁₋₅ alkylthio,
- ${}^{ullet}C_{2-5}$ alkenylthio,
- ocarbocyclic arylthio,
- °carbocyclic arylthio substituted by halogen,
- ocarbocyclic arylthio substituted by C₁₋₅ alkoxycarbonyl,
- •heterocyclylthio,
- •heterocyclylthio substituted by C₁₋₅ alkyl,

- •C₁₋₅ alkylsulfinyl,
- ${}^{\circ}C_{1-5}$ alkylsulfonyl,
- ocarbocyclic arylsulfinyl,
- ocarbocyclic arylsulfinyl substituted by halogen,
- ocarbocyclic arylsulfonyl,
- °carbocyclic arylsulfonyl substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen,
 - ••C₁₋₅ alkoxy,
 - ••C₁₋₅ alkyl, and
 - ••C₁₋₅ alkyl substituted by halogen,
- •C₁₋₅ alkoxycarbonyl,
- •C₁₋₅ alkoxycarbonyl substituted by carbocyclic aryl,
- •carbocyclic aryl,
- •carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen,
 - ••nitro,
 - ••C₁₋₅ alkyl,
 - ••C₁₋₅ alkyl substituted by halogen,
 - ••C₁₋₅ alkoxy, and
 - ••C₁₋₅ alkoxy substituted by halogen,
- ·heterocyclyl, and
- •heterocyclyl substituted by substituent(s) independently selected from the group consisting of:
 - ∘∘halogen,
 - ••C₁₋₅ alkyl,
 - ••C₁₋₅ alkyl substituted by halogen,

830

••C₁₋₅ alkoxy, and

∘∘C₁₋₅ alkoxycarbonyl;

R₂ is selected from the group consisting of:

hydrogen, halogen, hydroxy, carboxy, carbamoyl, amino, C_{1-5} alkyl, C_{1-5} alkyl substituted by hydroxy, C_{1-5} alkyl substituted by hydroxy, C_{1-5} alkyl substituted by carbamoyl, C_{1-5} alkoxy, C_{1-5} alkoxy substituted by halogen, -NHNH₂, -NHNHBoc, -N(R_{2a})(R_{2b}), morpholino, 4-acetyl-piperazyl, or 4-phenyl-piperazyl, wherein R_{2a} is hydrogen or C_{1-5} alkyl and R_{2b} is C_{1-5} alkyl, C_{3-6} cycloalkyl, or C_{1-5}

wherein R_{2a} is hydrogen or C_{1-5} alkyl and R_{2b} is C_{1-5} alkyl, C_{3-6} cycloalkyl, or C_{1-5} alkyl substituted by substituent(s) independently selected from the group consisting of:

- •halogen,
- •hydroxy,
- ·carboxy,
- ·carbamoyl,
- •C₁₋₅ alkoxy,
- •amino.
- •-NHBoc,
- •C₃₋₆ cycloalkyl,
- •carbocyclic aryl,
- •carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen,
 - ∘∘C₁₋₅ alkyl,
 - ∘∘C₁₋₅ alkoxy, and
 - ••-SO₂NH₂,
- •heterocyclyl, and

WO 2004/087669

C₃₋₆ cycloalkyl, carbocyclic aryl, carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

ohalogen,

∘C₁₋₅ alkyl,

°C₁₋₅ alkoxy, and

•a group of Formula (V):

$$\xi$$
— $N-G$

wherein Boc is carbamic acid *tert*-butyl ester and G is C_{1-5} alkyl or C_{1-5} alkyl substituted by substituted by substituted substituted by substituted substituted by substituted substituted by substituted substi

- •carbocyclic aryl,
- •halogenated carbocyclic aryl, and
- •carbocyclic aryl substituted by C₁₋₅ alkoxy;

or R₂ is methylamino or dimethylamino when Q is Formula (II) and Y is a single bond or -CH₂-;

Each T is independently selected from the group consisting of halogen, hydroxy, carboxy, carbamoyl, amino, cyano, nitro, C_{1-5} alkyl, C_{1-5} alkyl substituted by halogen, C_{1-5} alkyl substituted by hydroxy, C_{1-5} alkyl substituted by carboxy, C_{1-5} alkyl substituted by carbamoyl, C_{2-5} alkenyl, C_{2-5} alkynyl, C_{3-6} cycloalkyl, C_{1-5} alkoxy, C_{1-5} alkoxy substituted by halogen, carbocyclic aryl, heterocyclyl, and $-N(R_{2a})(R_{2b})$;

p is 0, 1, 2, 3, 4 or 5;

L is selected from the group consisting of Formulae (VI) to (XXI):

wherein R_3 and R_4 are independently hydrogen or C_{1-5} alkyl; and A and B are independently a single bond, -CH₂-, or -(CH₂)₂-;

(XXI)

(XX)

Y represents:

- -C(O)NR₅-, -C(S)NR₅-, -C(O)O-, -S(O)₂-, -C(O)-, -C(S)-, a single bond, or
 -CH₂- when L is selected from the group consisting of Formulae (VI) to
 (XIII); or
- (ii) -C(O)NR₅-, -C(S)NR₅-, -C(O)O- or -OC(O)- when L is selected from the group consisting of Formulae (XIV) to (XXI);

wherein R_5 is hydrogen or C_{1-5} alkyl, or when Y is $-C(O)NR_5$ - then R_5 and R_1 together with the nitrogen they are bonded form a heterocyclyl group;

wherein carbocyclic aryl is phenyl, naphthyl, anthranyl, phenanthryl, or biphenyl;

carbocyclyl is 10,11-dihydro-5-oxo-dibenzo[a,d]cycloheptyl, 1-oxo-indanyl, 7,7-dimethyl-2-oxo-bicyclo[2.2.1]heptyl, 9*H*-fluorenyl, 9-oxo-fluorenyl, acenaphthyl, anthraquinonyl, *C*-fluoren-9-ylidene, indanyl, indenyl, 1,2,3,4-tetrahydro-naphthyl, or bicyclo[2.2.1]heptenyl;

heterocyclyl is 1,2,3,4-tetrahydro-isoquinolyl, 1,2,3-thiadiazolyl, 1,2,3-triazolyl, 1,2-dihydro-3-oxo-pyrazolyl, 1,3,4-thiadiazolyl, 1,3-dioxo-isoindolyl, 1,3-dioxolanyl, 1*H*-indolyl, 1*H*-pyrrolo[2,3-c]pyridyl, 1*H*-pyrrolyl, 1-oxo-3*H*-isobenzofuranyl, 2,2',5',2"-terthiophenyl, 2,2'-bithiophenyl, 2,3-dihydro-1-oxo-isoindolyl, 2,3-dihydro-benzo[1,4]dioxinyl, 2,3-dihydro-benzofuryl, 2,4-dihydro-3-oxo-pyrazolyl, 2*H*-benzopyranyl, 2-oxo-benzopyranyl, 2-oxo-pyrrolidinyl, 3,4-dihydro-2*H*-benzo[1,4]oxazinyl, 3,4-dihydro-2*H*-benzo[b][1,4]dioxepinyl, 4*H*-benzo[1,3]dioxinyl, 4*H*-benzopyranyl, 4-oxo-1,5,6,7-tetrahydro-indolyl, 4-oxo-3,4-dihydro-phthalazinyl, 4-oxo-benzopyranyl, 9,10,10-trioxo-thioxanthenyl, 9*H*-carbazolyl, 9*H*-xanthenyl, azetidinyl, benzimidazolyl, benzo[1,3]dioxolyl, benzo[2,1,3]oxadiazolyl, benzo[1,2,5]oxadiazolyl, benzo[b]thienyl, benzofuryl, benzothiazolyl, cinnolyl, furyl, imidazo[2,1-b]thiazolyl, imidazolyl, piperidyl, piridyl,

pyrazolo[5,1-b]thiazolyl, pyrazolyl, pyrazinyl, pyridyl, pyrimidyl, pyrrolidyl, quinolyl, quinoxalyl, thiazolidyl, thiazolyl, thienyl, thiolanyl, 2,3-dihydrobenzofuryl, tetrahydro-thienyl, or benzofuranyl; and

halogen is fluoro, chloro, bromo, or iodo; or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

- 2. The compound according to claim 1 wherein R_1 is selected from the group consisting of:
 - (i) C₁₋₈ alkyl, and

C₁₋₈ alkyl substituted by substituent(s) independently selected from the group consisting of:

- •halogen,
- •oxo,
- •C₁₋₅ alkoxy,
- •C₁₋₅ alkoxy substituted by carbocyclic aryl,
- •C₁₋₅ alkylcarbonyloxy,
- ·carbocyclic aryloxy,
- •carbocyclic aryloxy substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen,
 - ••nitro,
 - ••C₁₋₅ alkyl, and
 - ••C₁₋₅ alkoxy,
- •heterocyclyloxy,
- •heterocyclyloxy substituted by C₁₋₅ alkyl,
- °C₁₋₅ alkoxycarbonyl,
- omono-C₁₋₅ alkylaminocarbonyl,
- •di-C₁₋₅ alkylaminocarbonyl,
- •mono-C₁₋₅ alkylamino,

- •mono-C₁₋₅ alkylamino substituted by cyano,
- •mono-C₁₋₅ alkylamino substituted by carbocyclic aryl,
- odi-C₁₋₅ alkylamino,
- odi-C₁₋₅ alkylamino substituted by cyano,
- °di-C₁₋₅ alkylamino substituted by carbocyclic aryl,
- omono-carbocyclic arylamino,
- •mono-carbocyclic arylamino substituted by halogen,
- •mono-carbocyclic arylamino substituted by C₁₋₅ alkyl,
- •di-carbocyclic arylamino,
- •di-carbocyclic arylamino substituted by halogen,
- •di-carbocyclic arylamino substituted by C₁₋₅ alkyl,
- •C₁₋₅ alkoxycarbonylamino,
- •carbocyclic arylcarbonylamino,
- •carbocyclic arylsulfonylamino,
- •carbocyclic arylsulfonylamino substituted C₁₋₅ alkyl,
- •C₁₋₅ alkylthio,
- •C₁₋₅ alkylthio substituted by substituent(s) independently selected from the group consisting of:
 - ··carbocyclic aryl,
 - ••carbocyclic aryl substituted by halogen, and
 - ••carbocyclic aryl substituted by C₁₋₅ alkoxy,
- •carbocyclic arylthio,
- •heterocyclylthio,
- •heterocyclylthio substituted by nitro,
- •heterocyclylthio substituted by C₁₋₅ alkyl,
- °C₃₋₆ cycloalkyl,
- •C₃₋₆ cycloalkenyl,
- •carbocyclyl,

836

•carbocyclyl substituted by substituent(s) independently selected from the group consisting of:

∘∘halogen,

∘∘C₁₋₅ alkyl,

∞C₁₋₅ alkoxy,

[∞]C₂₋₅ alkenyl, and

••C₂₋₅ alkenyl substituted by substituent(s) independently selected from the group consisting of:

•••carbocyclic aryl, and

•••carbocyclic aryl substituted by C₁₋₅ alkylsulfinyl,

•carbocyclic aryl,

•carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

- ••halogen,
- ••hydroxy,
- ••nitro,
- ••C₁₋₅ alkyl,

••C₁₋₅ alkyl substituted by substituent(s) independently selected from the group consisting of:

•••OXO,

•••carbocyclic aryl, and

•••heterocyclyl,

••C₂₋₅ alkenyl,

∘∘C₁₋₅ alkoxy,

••C₁₋₅ alkoxy substituted by halogen,

 $\circ \circ C_{1-5}$ alkoxy substituted by carbocyclic aryl,

••carbocyclic aryloxy,

••mono-carbocyclic arylaminocarbonyl,

837

- ••mono-carbocyclic arylaminocarbonyl substituted by halogen,
- oodi-carbocyclic arylaminocarbonyl,
- oodi-carbocyclic arylaminocarbonyl substituted by halogen,
- oocarbocyclic aryl, and
- ooheterocyclyl,
- oheterocyclyl, and
- •heterocyclyl substituted by substituent(s) independently selected from the group consisting of:
 - ••C₁₋₅ alkyl,
 - ••C₁₋₅ alkyl substituted by carbocyclic aryl,
 - ••C₁₋₅ alkoxy,
 - ••C₁₋₅ alkoxy substituted by carbocyclic aryl,
 - ••carbocyclic aryl, and
 - ••carbocyclic aryl substituted by halogen,
- (ii) C₂₋₇ alkenyl, and

C₂₋₇ alkenyl substituted by substituent(s) independently selected from the group consisting of:

- ·carbocyclic aryl,
- •carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
 - ··halogen,
 - ••nitro, and
 - ••C₁₋₅ alkoxy,
- (iii) C_{2-5} alkynyl, and

C₂₋₅ alkynyl substituted by carbocyclic aryl,

(iv) C₃₋₁₂ cycloalkyl, and

C₃₋₁₂ cycloalkyl substituted by substituent(s) independently selected from the group consisting of:

838

- •C₁₋₅ alkyl,
- °C₁₋₅ alkyl substituted by oxo,
- ${}^{\circ}C_{\text{I-5}}$ alkyl substituted by carbocyclic aryl, and
- ocarbocyclic aryl,

the group consisting of:

- (v) carbocyclyl,
- (vi) carbocyclic aryl, andcarbocyclic aryl substituted by substituent(s) independently selected from
 - •halogen,
 - •hydroxy,
 - •cyano,
 - •nitro,
 - ·carboxy,
 - •carbamoyl,
 - \cdot C₁₋₁₀ alkyl,
 - •C₁₋₁₀ alkyl substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen,
 - ••hydroxy,
 - ••oxo,
 - ••carbocyclic aryloxy,
 - ••carbocyclic aryl, and
 - ••carbocyclic aryl substituted by C₁₋₅ alkyl,
 - ∘C₁₋₇ alkoxy,
 - °C₁₋₇ alkoxy substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen,
 - ··carbocyclic aryl, and

- ••halogenated carbocyclic aryl,
- ∘C₂₋₅ alkenyloxy,
- °C₃₋₆ cycloalkoxy,
- ocarbocyclic aryloxy,
- ocarbocyclic aryloxy substituted by nitro,
- •carbocyclic aryloxy substituted by C₁₋₅ alkoxy,
- •C₁₋₅ alkoxycarbonyl,
- •mono-C₁₋₅ alkylaminocarbonyl,
- •di-C₁₋₅ alkylaminocarbonyl,
- •mono-C₁₋₅ alkylaminocarbonyl substituted by carbocyclic aryl,
- •di-C₁₋₅ alkylaminocarbonyl substituted by carbocyclic aryl,
- •amino,
- •mono-C₁₋₅ alkylamino,
- •di-C₁₋₅ alkylamino,
- •mono-C₁₋₅ alkylamino substituted by cyano,
- •di-C₁₋₅ alkylamino substituted by cyano,
- •C₂₋₅ alkynylcarbonylamino,
- •C₂₋₅ alkynylcarbonylamino substituted by carbocyclic aryl,
- ${}^{ullet}C_{1-5}$ alkoxycarbonylamino,
- •(carbocyclic aryl)NHC(O)NH,
- •(carbocyclic aryl)NHC(O)NH substituted by C₁₋₅ alkoxy,
- •(carbocyclic aryl)NHC(O)NH substituted by haloganated C₁₋₅ alkoxy,
- •carbocyclic aryl azo,
- *carbocyclic aryl azo substituted by mono-C₁₋₅ alkylamino,
- •carbocyclic aryl azo substituted by di-C₁₋₅ alkylamino,
- °C₁₋₅ alkylthio,
- ${}^{ullet}C_{1-5}$ alkylthio substituted by halogen,
- •carbocyclic arylthio,

- •carbocyclic arylthio substituted by nitro,
- ocarbocyclic arylthio substituted by cyano,
- oaminosulfonyl,
- omono-C₁₋₅ alkylaminosulfonyl,
- \circ di- C_{1-5} alkylaminosulfonyl,
- •heterocyclylsulfonyl,
- °C₃₋₆ cycloalkyl,
- •C₃₋₆ cycloalkyl substituted by C₁₋₅ alkyl,
- •carbocyclic aryl,
- ·heterocyclyl, and
- •heterocyclyl substituted by substituent(s) independently selected from the group consisting of:
 - •• C_{1-5} alkyl,
 - ··carbocyclic aryl, and
 - ••halogenated carbocyclic aryl,
- (vii) heterocyclyl, and

heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

- ·halogen,
- •nitro,
- •amino,
- •hydroxy,
- •C₁₋₅ alkyl,
- °C₁₋₅ alkyl substituted by substituent(s) independently selected from the group consisting of:
 - ∘∘halogen,
 - ••hydroxy,
 - ••C₁₋₅ alkylthio,

- ••C₁₋₅ alkylthio substituted by carbocyclic aryl,
- ••C₁₋₅ alkylthio substituted by halogenated carbocyclic aryl,
- ocarbocyclic aryl,
- ocarbocyclic aryl substituted by halogen, and
- ••heterocyclyl,
- ∘C₁₋₅ alkoxy,
- •carbocyclic aryloxy,
- •carbocyclic aryloxy substituted by halogen,
- •carbocyclic aryloxy substituted by C₁₋₅ alkyl,
- •carbocyclic aryloxy substituted by C₁₋₅ alkoxy,
- •mono-C₁₋₅ alkylamino,
- •di-C₁₋₅ alkylamino,
- •C₁₋₅ alkylthio,
- •C₂₋₅ alkenylthio,
- ·carbocyclic arylthio,
- •carbocyclic arylthio substituted by C₁₋₅ alkoxycarbonyl,
- •C₁₋₅ alkylsulfonyl,
- •carbocyclic arylsulfonyl,
- •carbocyclic arylsulfonyl substituted by C₁₋₅ alkyl,
- •C₁₋₅ alkoxycarbonyl,
- •C₁₋₅ alkoxycarbonyl substituted by carbocyclic aryl,
- ·carbocyclic aryl,
- •carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen,
 - oonitro,
 - ••C₁₋₅ alkyl, and
 - ••C₁₋₅ alkyl substituted by halogen,

heterocyclyl;

wherein carbocyclic aryl is phenyl, naphthyl, or anthranyl; carbocyclyl is 1,2,3,4-tetrahydronaphthyl, 1-oxo-indanyl, 9-fluorenyl, 9*H*-fluorenyl, 9-oxo-9*H*-fluorenyl, adamantly, bicyclo[2.2.1]heptenyl, bicyclo[2.2.1]heptyl, indanyl, indenyl, or menthyl;

heterocyclyl is 1,2,3-triazolyl, 1*H*-indolyl, 1*H*-pyrrolyl, 2,3-dihydro-1-oxo-isoindolyl, 2,3-dihydro-benzo[1,4]dioxinyl, 2,3-dihydro-benzofuryl, 2,4-dihydro-3-oxo-pyrazolyl, 2*H*-benzopyranyl, 2-oxo-benzopyranyl, 3,4-dihydro-2*H*-benzo[b][1,4]dioxepinyl, 4,5,6,7-tetrahydro-benzo[b]thienyl, 4*H*-benzo[1,3]dioxinyl, 4-oxo-1,5,6,7-tetrahydro-indolyl, 4-oxo-benzopyranyl, 9*H*-carbazolyl, 9*H*-xanthenyl, azetidinyl, benzo[1,3]dioxolyl, benzo[2,1,3]oxadiazolyl, benzo[1,2,5]oxadiazolyl, benzo[2,1,3]thiadiazolyl, benzo[b]thienyl, benzofuryl, benzothiazolyl, furyl, imidazo[2,1-b]thiazolyl, imidazolyl, isoxazolyl, morpholino, morpholinyl, oxazolyl, phenanthro[9,10-d]oxazolyl, piperidyl, pyrazolyl, pyridyl, pyrimidyl, quinolyl, quinoxalyl, tetrahydrofuryl, thiazolyl, or thienyl; and

halogen is fluoro, chloro, bromo, or iodo; or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

3. The compound according to claim 2 wherein Q is Formula (II);

 R_1 is selected from the group consisting of:

(i) C_{1-8} alkyl, and

C₁₋₈ alkyl substituted by substituent(s) independently selected from the group consisting of:

- •halogen,
- °OXO,
- °C₁₋₅ alkoxy,
- •C₁₋₅ alkoxy substituted by carbocyclic aryl,
- •C₁₋₅ alkylcarbonyloxy,

- carbocyclic aryloxy,
- ocarbocyclic aryloxy substituted by halogen,
- ocarbocyclic aryloxy substituted by nitro,
- oheterocyclyloxy,
- •heterocyclyloxy substituted by C₁₋₅ alkyl,
- ${}^{\circ}C_{1-5}$ alkoxycarbonyl,
- •mono-C₁₋₅ alkylaminocarbonyl,
- •di-C₁₋₅ alkylaminocarbonyl,
- •mono-C₁₋₅ alkylamino,
- •mono-C₁₋₅ alkylamino substituted by cyano,
- \bullet mono- C_{1-5} alkylamino substituted by carbocyclic aryl,
- •di-C₁₋₅ alkylamino,
- •di-C₁₋₅ alkylamino substituted by cyano,
- •di-C₁₋₅ alkylamino substituted by carbocyclic aryl,
- •mono-carbocyclic arylamino,
- •di-carbocyclic arylamino,
- •C₁₋₅ alkoxycarbonylamino,
- •carbocyclic arylcarbonylamino,
- •carbocyclic arylsulfonylamino,
- •carbocyclic arylsulfonylamino substituted C₁₋₅ alkyl,
- •C₁₋₅ alkylthio,
- •C₁₋₅ alkylthio substituted by substituent(s) independently selected from the group consisting of:
 - ocarbocyclic aryl,
 - ocarbocyclic aryl substituted by halogen, and
 - ocarbocyclic aryl substituted by C₁₋₅ alkoxy,
- •carbocyclic arylthio,
- •heterocyclylthio,

844

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•heterocyclylthio substituted by C<sub>1-5</sub> alkyl,
∘C<sub>3-6</sub> cycloalkyl,
°C<sub>3-6</sub> cycloalkenyl,
ocarbocyclyl,
*carbocyclyl substituted by substituent(s) independently selected from the
group consisting of:
         ••halogen,
         ∘∘C<sub>1-5</sub> alkyl,
          ••C<sub>1-5</sub> alkoxy,
          ••C<sub>2-5</sub> alkenyl, and
         {ullet} -C<sub>2-5</sub> alkenyl substituted by substituent(s) independently selected
         from the group consisting of:
                   •••carbocyclic aryl, and
                   •••carbocyclic aryl substituted by C<sub>1-5</sub> alkylsulfinyl,
·carbocyclic aryl,
•carbocyclic aryl substituted by substituent(s) independently selected from
the group consisting of:
          ••halogen,
          ••hydroxy,
          ••nitro,
          ••C<sub>1-5</sub> alkyl,
         ••C<sub>1-5</sub> alkyl substituted by substituent(s) independently selected
          from the group consisting of:
                    oooOXO,
                    osocarbocyclic aryl, and
                   oooheterocyclyl,
          ••C<sub>2-5</sub> alkenyl,
          ••C<sub>1-5</sub> alkoxy,
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845

- ••C₁₋₅ alkoxy substituted by halogen,
- ••C₁₋₅ alkoxy substituted by carbocyclic aryl,
- ocarbocyclic aryloxy,
- oomono-carbocyclic arylaminocarbonyl,
- oomono-carbocyclic arylaminocarbonyl substituted by halogen,
- oodi-carbocyclic arylaminocarbonyl,
- ••di-carbocyclic arylaminocarbonyl substituted by halogen,
- ocarbocyclic aryl, and
- ••heterocyclyl,
- ·heterocyclyl, and
- •heterocyclyl substituted by substituent(s) independently selected from the group consisting of:
 - ••C₁₋₅ alkyl,
 - ••C₁₋₅ alkyl substituted by carbocyclic aryl,
 - ••C₁₋₅ alkoxy,
 - ••C₁₋₅ alkoxy substituted by carbocyclic aryl,
 - ••carbocyclic aryl, and
 - ••carbocyclic aryl substituted by halogen,
- (ii) C_{2-7} alkenyl, and

C₂₋₇ alkenyl substituted by substituent(s) independently selected from the group consisting of:

- ·carbocyclic aryl,
- •carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
 - ∘∘halogen,
 - oonitro, and
 - ••C₁₋₅ alkoxy,
- (iii) C₂₋₅ alkynyl, and

C₂₋₅ alkynyl substituted by carbocyclic aryl,

(iv) C₃₋₆ cycloalkyl, and

C₃₋₆ cycloalkyl substituted by substituent(s) independently selected from the group consisting of:

∘C₁₋₅ alkyl,

°C₁₋₅ alkyl substituted by oxo,

•C₁₋₅ alkyl substituted by carbocyclic aryl, and

·carbocyclic aryl,

- (v) carbocyclyl,
- (vi) carbocyclic aryl, andcarbocyclic aryl substituted by substituent(s) independently selected fromthe group consisting of:
 - •halogen,
 - •hydroxy,
 - •cyano,
 - •nitro,
 - •C₁₋₅ alkyl,
 - •C₁₋₅ alkyl substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen,
 - ••oxo,
 - ••carbocyclic aryloxy,
 - ••carbocyclic aryl, and
 - ••carbocyclic aryl substituted by C₁₋₅ alkyl,

∘C₁₋₅ alkoxy,

°C₁₋₅ alkoxy substituted by substituent(s) independently selected from the group consisting of:

••halogen,

- ··carbocyclic aryl, and
- ••halogenated carbocyclic aryl,
- ∘C₂₋₅ alkenyloxy,
- °C₃₋₆ cycloalkoxy,
- ·carbocyclic aryloxy,
- °carbocyclic aryloxy substituted by C₁₋₅ alkoxy,
- •C₁₋₅ alkoxycarbonyl,
- •mono-C₁₋₅ alkylaminocarbonyl,
- •di-C₁₋₅ alkylaminocarbonyl,
- •mono-C₁₋₅ alkylaminocarbonyl substituted by carbocyclic aryl,
- •di-C₁₋₅ alkylaminocarbonyl substituted by carbocyclic aryl,
- ·amino,
- •mono-C₁₋₅ alkylamino,
- •di-C₁₋₅ alkylamino,
- •mono-C₁₋₅ alkylamino substituted by cyano,
- •di-C₁₋₅ alkylamino substituted by cyano,
- •C₂₋₅ alkynylcarbonylamino,
- •C₂₋₅ alkynylcarbonylamino substituted by carbocyclic aryl,
- •(carbocyclic aryl)NHC(O)NH,
- •(carbocyclic aryl)NHC(O)NH substituted by C₁₋₅ alkoxy,
- •(carbocyclic aryl)NHC(O)NH substituted by haloganated C₁₋₅ alkoxy,
- •C₁₋₅ alkylthio,
- •C₁₋₅ alkylthio substituted by halogen,
- ocarbocyclic arylthio,
- ocarbocyclic arylthio substituted by cyano,
- ∘mono-C₁₋₅ alkylaminosulfonyl,
- •di-C₁₋₅ alkylaminosulfonyl, and
- ·carbocyclic aryl,

WO 2004/087669

848

(vii) heterocyclyl, and

heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

- ∘halogen,
- onitro,
- ∘C₁₋₅ alkyl,
- °C₁₋₅ alkyl substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen,
 - ••hydroxy,
 - ••C₁₋₅ alkylthio,
 - ••C₁₋₅ alkylthio substituted by carbocyclic aryl,
 - ${\ensuremath{\bullet \bullet}} C_{1\ensuremath{\bullet} 5}$ alkylthio substituted by halogenated carbocyclic aryl,
 - ••carbocyclic aryl,
 - ··carbocyclic aryl substituted by halogen, and
 - ••heterocyclyl,
- $\cdot C_{1-5}$ alkoxy,
- ·carbocyclic aryloxy,
- •carbocyclic aryloxy substituted by C₁₋₅ alkyl,
- •C₁₋₅ alkylthio,
- •C₂₋₅ alkenylthio,
- •carbocyclic arylthio,
- •carbocyclic arylthio substituted by C₁₋₅ alkoxycarbonyl,
- °C₁₋₅ alkylsulfonyl,
- ocarbocyclic arylsulfonyl,
- \circ carbocyclic arylsulfonyl substituted by C_{1-5} alkyl,
- •C₁₋₅ alkoxycarbonyl,
- ·carbocyclic aryl,

•carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

∘∘halogen,

∘∘nitro.

∞C₁₋₅ alkyl, and

∘∘C₁₋₅ alkyl substituted by halogen,

*heterocyclyl;

R₂ is methylamino or dimethylamino when Y is a single bond or -CH₂-; wherein carbocyclic aryl is phenyl, naphthyl, or anthranyl;

carbocyclyl is 1,2,3,4-tetrahydronaphthyl, 1-oxo-indanyl, 9-fluorenyl, 9-oxo-9*H*-fluorenyl, bicyclo[2.2.1]heptyl, indenyl, or menthyl;

heterocyclyl is 1,2,3-triazolyl, 1*H*-indolyl, 1*H*-pyrrolyl, 2,3-dihydro-1-oxo-isoindolyl, 2,3-dihydro-benzo[1,4]dioxinyl, 2,3-dihydro-benzofuryl, 2,4-dihydro-3-oxo-pyrazolyl, 2*H*-benzopyranyl, 2-oxo-benzopyranyl, 3,4-dihydro-2*H*-benzo[b][1,4]dioxepinyl, 4-oxo-benzopyranyl, 9*H*-carbazolyl, 9*H*-xanthenyl, azetidinyl, benzo[1,3]dioxolyl, benzo[2,1,3]oxadiazolyl, benzo[1,2,5]oxadiazolyl, benzo[b]thienyl, benzofuryl, benzothiazolyl, furyl, imidazo[2,1-b]thiazolyl, imidazolyl, isoxazolyl, morpholino, pyrazolyl, pyridyl, pyrimidyl, quinolyl, quinoxalyl, thiazolyl, or thienyl; and

halogen is fluoro, chloro, bromo, or iodo; or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

- 4. The compound according to claim 3 wherein R_1 is selected from the group consisting of:
 - (i) C_{1-7} alkyl, and

C₁₋₇ alkyl substituted by substituent(s) independently selected from the group consisting of:

•C₁₋₅ alkoxy,

•C₁₋₅ alkoxy substituted by carbocyclic aryl,

·carbocyclic aryloxy,

ocarbocyclic aryloxy substituted by halogen,

omono-C₁₋₅ alkylamino,

•mono-C₁₋₅ alkylamino substituted by substituent(s) independently selected from the group consisting of:

ocyano, and

» carbocyclic aryl,

odi-C1-5 alkylamino,

•di-C₁₋₅ alkylamino substituted by substituent(s) independently selected from the group consisting of:

- ••cyano, and
- ••carbocyclic aryl,
- •mono-carbocyclic arylamino,
- •di-carbocyclic arylamino,
- •carbocyclic arylsulfonylamino,
- •carbocyclic arylsulfonylamino substituted by C₁₋₅ alkyl,
- •carbocyclic aryl,
- •carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen,
 - ••nitro,
 - ••C₁₋₅ alkyl,
 - ••C₁₋₅ alkyl substituted by substituent(s) independently selected from the group consisting of:

oooxo, and

ooocarbocyclic aryl,

- •• C_{1-5} alkoxy,
- ••C₁₋₅ alkoxy substituted by halogen,

- •heterocyclyl,
- •heterocyclyl substituted by carbocyclic aryl, and
- oheterocyclyl substituted by halogen,
- (ii) C₂₋₇ alkenyl, and

 C_{2-7} alkenyl substituted by substituent(s) independently selected from the group consisting of:

- *carbocyclic aryl, and
- •carbocyclic aryl substituted by C₁₋₅ alkoxy,
- (iii) C_{2-5} alkynyl, and C_{2-5} alkynyl substituted by carbocyclic aryl,
- (iv) C₃₋₆ cycloalkyl, and
 C₃₋₆ cycloalkyl substituted by substituent(s) independently selected from the group consisting of:
 - •C₁₋₅ alkyl, and
 - •C₁₋₅ alkyl substituted by carbocyclic aryl,
- (v) carbocyclic aryl, andcarbocyclic aryl substituted by substituent(s) independently selected fromthe group consisting of:
 - ·halogen,
 - hydroxy,
 - •cyano,
 - •C₁₋₅ alkyl,
 - •C₁₋₅ alkyl substituted by halogen,
 - •C₁₋₅ alkoxy,
 - °C₁₋₅ alkoxy substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen, and
 - ••carbocyclic aryl,

- ••carbocyclic aryl substituted by halogen,
- °C₂₋₅ alkenyloxy,
- omono-C₁₋₅ alkylamino,
- odi-C₁₋₅ alkylamino,
- •mono-C₁₋₅ alkylamino substituted by cyano,
- odi-C₁₋₅ alkylamino substituted by cyano,
- ∘C₁₋₅ alkylthio, and
- ∘C₁₋₅ alkylthio substituted by halogen,
- (vi) heterocyclyl, and

heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

- ·halogen,
- $\cdot C_{1-5}$ alkyl,
- •C₁₋₅ alkyl substituted by substituent(s) independently selected from the group consisting of:
 - ••hydroxy, and
 - ••carbocyclic aryl,
- •C₁₋₅ alkoxy,
- •carbocyclic arylthio,
- •carbocyclic arylthio substituted by C_{1-5} alkoxycarbonyl,
- •C₁₋₅ alkoxycarbonyl,
- •carbocyclic aryl,
- •carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen,
 - ∘∘C₁₋₅ alkyl, and
 - ••C₁₋₅ alkyl substituted by halogen,

L is Formula (VII);

Y is a single bond or -CH₂-;

R₂ is methylamino or dimethylamino;

wherein carbocyclic aryl is phenyl or naphthyl;

heterocyclyl is 1H-indolyl, 1H-pyrrolyl, 2,3-dihydro-benzo[1,4]dioxinyl,

4-oxo-benzopyranyl, 9H-carbazolyl, azetidinyl, benzo[1,3]dioxolyl,

benzo[b]thienyl, furyl, imidazo[2,1-b]thiazolyl, pyrazolyl, pyridyl, or thienyl; and halogen is fluoro, chloro, bromo, or iodo;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

- 5. The compound according to claim 4 wherein p is 0; R₃ and R₄ are hydrogen; A is a single bond or -CH₂-; and B is a single bond or -CH₂-; or a pharmaceutically acceptable salt, hydrate, or solvate thereof.
- 6. The compound according to claim 5 wherein R_1 is selected from the group consisting of:
 - (i) C_{1-5} alkyl, and

C₁₋₅ alkyl substituted by substituent(s) independently selected from the group consisting of:

- •mono-C₁₋₅ alkylamino,
- •mono-C₁₋₅ alkylamino substituted by cyano,
- •di-C_{1.5} alkylamino,
- •di-C₁₋₅ alkylamino substituted by cyano,
- •mono-carbocyclic arylamino,
- •di-carbocyclic arylamino,
- ocarbocyclic aryl,
- •carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen, and
 - ••C₁₋₅ alkoxy,

854

- •heterocyclyl, and
- •heterocyclyl substituted by carbocyclic aryl,
- (ii) C₂₋₅ alkenyl, and

 C_{2-5} alkenyl substituted by carbocyclic aryl,

- (iii) carbocyclic aryl, and
 - carbocyclic aryl substituted by substituent(s) independently selected from

the group consisting of:

- •halogen,
- •hydroxy,
- •C₁₋₅ alkoxy,
- •C₁₋₅ alkoxy substituted by halogen, and
- •C₂₋₅ alkenyloxy,
- (iv) heterocyclyl, and

heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

- ·halogen,
- •C₁₋₅ alkyl,
- •C₁₋₅ alkyl substituted by carbocyclic aryl,
- •C₁₋₅ alkoxy, and
- •C₁₋₅ alkoxycarbonyl;

wherein carbocyclic aryl is phenyl or naphthyl;

heterocyclyl is 1H-indolyl, azetidinyl, or benzo[1,3]dioxolyl; and

halogen is fluoro, chloro, bromo, or iodo;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

7. The compound according to claim 1 selected from the group consisting of:

ethyl 4,6-dichloro-3-{[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}-

cyclohexyl)amino]methyl}-1H-indole-2-carboxylate;

3-[{2-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-amino]ethyl}(phenyl)amino]propanenitrile;

 $N^4, N^4-dimethyl-N^2-(cis-4-\{[2-(2-phenyl-1H-indol-3-yl)ethyl]amino\}-cyclohexyl) \\ quinoline-2, 4-diamine;$

 $N^2-[\text{cis-4-}(\{[1-(\text{diphenylmethyl})\text{azetidin-3-yl}]\text{methyl}\}\text{amino})\text{cyclohexyl}]-N^4,N^4-\\$ dimethylquinoline-2,4-diamine;

 $N^2\text{-(cis-4-}\{[(2,6\text{-dimethoxybenzyl})amino]methyl\}\ cyclohexyl)-N^4,N^4-\\$ dimethylquinoline-2,4-diamine;

 N^2 -(cis-4-{[(2-ethoxybenzyl)amino]methyl}cyclohexyl)- N^4 , N^4 -dimethylquinoline-2,4-diamine;

 N^2 -[cis-4-({[(4-methoxy-1-naphthyl)methyl]amino}methyl)cyclohexyl]- N^4 , N^4 -dimethylquinoline-2,4-diamine;

4-bromo-2-({[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-methyl]amino}methyl)-6-methoxyphenol;

 $N^2\hbox{-[cis-4-(\{[(5\hbox{-bromo-1H-indol-3-yl})methyl]amino\}methyl)cyclohexyl]-}N^4, N^4-dimethylquinoline-2, 4-diamine;$

 $N^2 - (cis-4 - \{[(5-bromo-2, 4-dimethoxybenzyl)amino] methyl\} cyclohexyl) - N^4, N^4 - dimethylquinoline - 2, 4-diamine;$

 $N^2\text{-}(\text{cis-4-}\{[(3,3\text{-}diphenylprop-2\text{-}en-1\text{-}yl)amino}] methyl\} cyclohexyl)-N^4,N^4-dimethylquinoline-2,4-diamine;$

 N^4,N^4 -dimethyl- N^2 -(cis-4-{[(2,4,6-trimethoxybenzyl)amino]methyl}-cyclohexyl)quinoline-2,4-diamine;

 $N^2\text{-(cis-4-}\{[(2,5\text{-diethoxybenzyl})\text{amino}]\text{methyl}\}\text{cyclohexyl})\text{-}N^4\text{-}N^4\text{-}$ dimethylquinoline-2,4-diamine;

 $N^2\text{-(cis-4-{[(2,4-diethoxybenzyl)amino]methyl}}\ cyclohexyl)-N^4,N^4-dimethylquinoline-2,4-diamine;$

 N^2 -(cis-4-{[(3,5-dibromo-2-methoxybenzyl)amino]methyl}cyclohexyl)- N^4 , N^4 -dimethylquinoline-2,4-diamine;

 $N^4,N^4-dimethyl-N^2-(cis-4-\{[(2,4,5-triethoxybenzyl)amino]methyl\}-\\ cyclohexyl)quinoline-2,4-diamine;$

 $N^4, N^4-dimethyl-N^2-(cis-4-\{[(2,4,5-trimethoxybenzyl)amino]methyl\}-\\ cyclohexyl) quinoline-2,4-diamine;$

 $N^2\hbox{-[cis-4-(\{[2-(allyloxy)benzyl]amino}\} methyl)cyclohexyl]-N^4,N^4-dimethylquinoline-2,4-diamine;}$

N²-[cis-4-({[(7-methoxy-1,3-benzodioxol-5-yl)methyl]amino}methyl)-cyclohexyl]-N⁴,N⁴-dimethylquinoline-2,4-diamine;

 $N^2-\{cis-4-[2-(4-bromo-2-trifluoromethoxy-phenyl)-ethylamino]-cyclohexyl\}-\\N^4,N^4-dimethyl-quinoline-2,4-diamine;$

N²-[cis-4-(4-bromo-2-trifluoromethoxy-benzyl)amino-cyclohexyl]-N⁴,N⁴-dimethyl-quinoline-2,4-diamine;

N²-[cis-4-(4-bromo-2-trifluoromethoxy-benzyl)amino-cyclohexyl]-N⁴-methyl-quinoline-2,4-diamine;

N²-{4-[2-(4-bromo-2-trifluoromethoxy-phenyl)-ethylamino]-cyclohexyl}-N⁴-methyl-quinoline-2,4-diamine;

 N^4 -methyl- N^2 -{cis-4-[(2-trifluoromethoxy-benzyl)amino-methyl]-cyclohexyl}-quinoline-2,4-diamine;

N²-{cis-4-[(4-bromo-2-trifluoromethoxy-benzyl)amino-methyl]-cyclohexyl}-N⁴-methyl-quinoline-2,4-diamine;

 N^2 -{cis-4-[(4-bromo-2-trifluoromethoxy-benzyl)amino-methyl]-cyclohexyl}- N^4 , N^4 -dimethyl-quinoline-2,4-diamine;

 $N^4, N^4-dimethyl-N^2-\{cis-4-[(2-trifluoromethoxy-benzyl)amino-methyl]-\\ \\ cyclohexyl\}-quinoline-2, \\ \\ 4-diamine;$

cis-N-(3,5-dimethoxybenzyl)-N'-(4-methylquinolin-2-yl)cyclohexane-1,4-diamine; and

cis-N-(3,5-dichlorobenzyl)-N'-(4-methylquinolin-2-yl)cyclohexane-1,4-diamine; or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

- 8. The compound according to claim 3 wherein R_1 is selected from the group consisting of:
 - (i) C_{1-5} alkyl, and

 C_{1-5} alkyl substituted by substituent(s) independently selected from the group consisting of:

- ohydroxy,
- •0X0,
- •C₁₋₅ alkoxy,
- •C₁₋₅ alkoxy substituted by carbocyclic aryl,
- •C₁₋₅ alkylcarbonyloxy,
- •carbocyclic aryloxy,
- •carbocyclic aryloxy substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen,
 - ••nitro,
 - ••C₁₋₅ alkyl,
 - ••C₁₋₅ alkoxy, and
 - ••C₁₋₅ alkoxy substituted by halogen,
- •heterocyclyloxy,
- •heterocyclyloxy substituted by C₁₋₅ alkyl,
- •mono-C₁₋₅ alkylaminocarbonyl,
- •di-C₁₋₅ alkylaminocarbonyl,
- •mono-C₁₋₅ alkylamino,
- •di-C₁₋₅ alkylamino,
- omono-carbocyclic arylamino,
- odi-carbocyclic arylamino,
- •mono-carbocyclic arylamino substituted by halogen,
- •di-carbocyclic arylamino substituted by halogen,

858

•carbocyclic arylcarbonylamino,

°C₁₋₅ alkoxycarbonylamino,

∘C₁₋₅ alkylthio,

°C₁₋₅ alkylthio substituted by substituent(s) independently selected from the group consisting of:

oocarbocyclic aryl, and

••carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

•••halogen, and

••• C_{1-5} alkoxy,

- •carbocyclic arylthio,
- •heterocyclylthio,
- •heterocyclylthio substituted by C₁₋₅ alkyl,
- •C₃₋₆ cycloalkyl,
- •C₃₋₆ cycloalkenyl,
- ·carbocyclyl,
- •carbocyclyl substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen,
 - ••C₁₋₅ alkyl,
 - ••C₁₋₅ alkoxy,
 - ••C₂₋₅ alkenyl, and
 - $\bullet \bullet C_{2-5}$ alkenyl substituted by substituent(s) independently selected from the group consisting of:

•••carbocyclic aryl, and

•••carbocyclic aryl substituted by C₁₋₅ alkylsulfinyl,

·carbocyclic aryl,

WO 2004/087669

•carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

- ∘∘halogen,
- ∘∘hydroxy,
- oonitro,
- ∘∘C₁₋₅ alkyl,
- ••C₁₋₅ alkyl substituted by substituent(s) independently selected from the group consisting of:
 - •••OXO,
 - •••carbocyclic aryl, and
 - •••heterocyclyl,
- •• C_{1-5} alkoxy,
- ••C₁₋₅ alkoxy substituted by halogen,
- ••C₁₋₅ alkoxy substituted by carbocyclic aryl,
- ••carbocyclic aryloxy,
- ••mono-carbocyclic arylaminocarbonyl,
- ••mono-carbocyclic arylaminocarbonyl substituted by halogen,
- ··di-carbocyclic arylaminocarbonyl,
- ••di-carbocyclic arylaminocarbonyl substituted by halogen,
- ••carbocyclic aryl, and
- ••heterocyclyl,
- ·heterocyclyl, and
- •heterocyclyl substituted by substituent(s) independently selected from the group consisting of:
 - ∘∘C₁₋₅ alkyl,
 - ∘∘C₁₋₅ alkyl substituted by carbocyclic aryl,
 - ••C₁₋₅ alkoxy,
 - ••C₁₋₅ alkoxy substituted by carbocyclic aryl,

860

··carbocyclic aryl, and

ocarbocyclic aryl substituted by halogen,

(ii) C₂₋₅ alkenyl, and

C₂₋₅ alkenyl substituted by substituent(s) independently selected from the group consisting of:

ocarbocyclic aryl,

•carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

- ··halogen, and
- ••nitro,
- (iii) C₃₋₆ cycloalkyl, and

C₃₋₆ cycloalkyl substituted by substituent(s) independently selected from the group consisting of:

•C₁₋₅ alkyl,

•C₁₋₅ alkyl substituted by substituent(s) independently selected from the group consisting of:

- ••oxo, and
- ••carbocyclic aryl, and
- •carbocyclic aryl,
- (iv) carbocyclyl,
- (v) carbocyclic aryl, and

carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

- •halogen,
- •hydroxy,
- ocyano,
- •nitro,
- ·carboxy,

WO 2004/087669

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·carbamoyl,
°C<sub>1-5</sub> alkyl,
\circ C_{1\text{-}5} alkyl substituted by substituent(s) independently selected from the
group consisting of:
          ••halogen,
          oohydroxy,
          °°OXO,
          ••carbocyclic aryloxy,
          ••carbocyclic aryl, and
          ••carbocyclic aryl substituted by C<sub>1-5</sub> alkyl,
•C<sub>1-5</sub> alkoxy,
•C<sub>1-5</sub> alkoxy substituted by substituent(s) independently selected from the
group consisting of:
          ••halogen, and
          ··carbocyclic aryl,

    carbocyclic aryloxy,

•carbocyclic aryloxy substituted by C<sub>1-5</sub> alkoxy,
•C<sub>1-5</sub> alkoxycarbonyl,
•mono-C<sub>1-5</sub> alkylaminocarbonyl,
•di-C<sub>1-5</sub> alkylaminocarbonyl,
•mono-C<sub>1-5</sub> alkylaminocarbonyl substituted by carbocyclic aryl,
•di-C<sub>1-5</sub> alkylaminocarbonyl substituted by carbocyclic aryl,
·amino,
emono-C<sub>1-5</sub> alkylamino,
odi-C<sub>1-5</sub> alkylamino,
•C<sub>2-5</sub> alkynylcarbonylamino,
•C<sub>2-5</sub> alkynylcarbonylamino substituted by carbocyclic aryl,
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•(carbocyclic aryl)NHC(O)NH,

- •(carbocyclic aryl)NHC(O)NH substituted by C₁₋₅ alkoxy,
- o(carbocyclic aryl)NHC(O)NH substituted by haloganated C₁₋₅ alkoxy,
- ∘C₁₋₅ alkylthio,
- °C₁₋₅ alkylthio substituted by halogen,
- ocarbocyclic arylthio,
- ocarbocyclic arylthio substituted by cyano,
- •mono-C₁₋₅ alkylaminosulfonyl,
- •di-C₁₋₅ alkylaminosulfonyl, and
- •carbocyclic aryl,
- (vi) heterocyclyl, and

heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

- •halogen,
- •nitro,
- •hydroxy,
- •amino,
- •C₁₋₅ alkyl,
- •C₁₋₅ alkyl substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen,
 - ••C₁₋₅ alkylthio,
 - ••C₁₋₅ alkylthio substituted by carbocyclic aryl,
 - ••C₁₋₅ alkylthio substituted by halogenated carbocyclic aryl,
 - ocarbocyclic aryl,
 - ocarbocyclic aryl substituted by halogen, and
 - ooheterocyclyl,
- •C₁₋₅ alkoxy,
- ·carbocyclic aryloxy,

863

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•carbocyclic aryloxy substituted by halogen,
         ocarbocyclic aryloxy substituted by C<sub>1-5</sub> alkyl,
         ocarbocyclic aryloxy substituted by C<sub>1-5</sub> alkoxy,
         ∘mono-C<sub>1-5</sub> alkylamino,
         odi-C<sub>1-5</sub> alkylamino,
         ∘C<sub>1-5</sub> alkylthio,
         ∘C<sub>2-5</sub> alkenylthio,
         •carbocyclic arylthio,
         •C<sub>1-5</sub> alkylsulfonyl,
         •carbocyclic arylsulfonyl,
         •carbocyclic arylsulfonyl substituted by C<sub>1-5</sub> alkyl,
         •carbocyclic aryl,
         •carbocyclic aryl substituted by substituent(s) independently selected from
         the group consisting of:
                  ••halogen,
                  ••nitro, and
                  ••C<sub>1-5</sub> alkyl,
         •heterocyclyl;
        L is Formula (VII);
         Y is -C(O)-;
         wherein carbocyclic aryl is phenyl, naphthyl, or anthranyl;
         carbocyclyl is 1,2,3,4-tetrahydronaphthyl, 1-oxo-indanyl, 9-oxo-9H-
fluorenyl, or indenyl;
         heterocyclyl is 1,2,3-triazolyl, 1H-indolyl, 1H-pyrrolyl, 2,3-dihydro-1-
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heterocyclyl is 1,2,3-triazolyl, 1*H*-indolyl, 1*H*-pyrrolyl, 2,3-dihydro-1-oxo-isoindolyl, 2,3-dihydro-benzofuryl, 2,4-dihydro-3-oxo-pyrazolyl, 2*H*-benzopyranyl, 2-oxo-benzopyranyl, 9*H*-xanthenyl, benzo[1,3]dioxolyl, benzo[2,1,3]oxadiazolyl, benzo[1,2,5]oxadiazolyl, benzo[b]thienyl, benzofuryl,

864

benzothiazolyl, furyl, imidazolyl, isoxazolyl, morpholino, pyrazolyl, pyridyl, pyrimidyl, quinolyl, quinoxalyl, thiazolyl, or thienyl; and

halogen is fluoro, chloro, bromo, or iodo; or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

- 9. The compound according to claim 8 wherein R₂ is hydrogen, halogen, methyl, trifluoromethyl, methoxy, carbamoyl, amino, methylamino, or dimethylamino; p is 0; R₃ and R₄ are hydrogen; A is a single bond; B is a single bond or -CH₂-; or a pharmaceutically acceptable salt, hydrate, or solvate thereof.
- 10. The compound according to claim 9 wherein R₁ is selected from the group consisting of:
 - (i) C_{1-5} alkyl, and

C₁₋₅ alkyl substituted by substituent(s) independently selected from the group consisting of:

- •oxo,
- ·carbocyclic aryloxy,
- •carbocyclic aryloxy substituted by halogen,
- •carbocyclic aryloxy substituted by C₁₋₅ alkyl,
- •carbocyclic aryloxy substituted by C₁₋₅ alkoxy,
- •mono-C₁₋₅ alkylamino,
- •di-C₁₋₅ alkylamino,
- •mono-carbocyclic arylamino,
- ·di-carbocyclic arylamino,
- •mono-carbocyclic arylamino substituted by halogen,
- odi-carbocyclic arylamino substituted by halogen,
- °C₃₋₆ cycloalkyl,
- ·carbocyclic aryl,

•carbocyclic aryl by substituent(s) independently selected from the group consisting of:

- oohalogen,
- ∞C₁₋₅ alkyl, and
- ∘∘C₁₋₅ alkoxy,
- •heterocyclyl, and
- •heterocyclyl substituted by substituent(s) independently selected from the group consisting of:
 - ••C₁₋₅ alkyl,
 - ••C₁₋₅ alkoxy, and
 - ••carbocyclic aryl,
- (ii) C_{2-5} alkenyl, and

C₂₋₅ alkenyl substituted by substituent(s) independently selected from the group consisting of:

- •carbocyclic aryl,
- •carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen, and
 - ••nitro,
- (iii) carbocyclic aryl, and

carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

- •halogen,
- •hydroxy,
- ecyano,
- onitro,
- •carbamoyl,
- •C₁₋₅ alkyl,

- •C₁₋₅ alkyl substituted by halogen,
- ∘C₁₋₅ alkyl substituted by hydroxy,
- °C₁₋₅ alkoxycarbonyl,
- °C₁₋₅ alkoxy,
- ^oC₁₋₅ alkoxy substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen, and
 - oocarbocyclic aryl,
- •carbocyclic aryloxy, and
- •carbocyclic aryloxy substituted by C₁₋₅ alkoxy,
- (iv) heterocyclyl, and

heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

- •halogen,
- •nitro,
- •amino,
- •C₁₋₅ alkyl,
- •C₁₋₅ alkyl substituted by halogen,
- •C₁₋₅ alkoxy,
- •carbocyclic aryloxy,
- •carbocyclic aryloxy substituted by halogen,
- •carbocyclic aryloxy substituted by C₁₋₅ alkyl,
- •carbocyclic aryloxy substituted by C₁-5 alkoxy,
- •mono-C₁₋₅ alkylamino,
- odi-C₁₋₅ alkylamino,
- ocarbocyclic aryl,
- •carbocyclic aryl substituted by halogen,
- •carbocyclic aryl substituted by nitro, and

867

•heterocyclyl;

wherein carbocyclic aryl is phenyl;

heterocyclyl is 1,2,3-triazolyl, 1*H*-indolyl, 1*H*-pyrrolyl, 9*H*-xanthenyl, benzo[2,1,3]oxadiazolyl, benzo[1,2,5]oxadiazolyl, furyl, isoxazolyl, pyridyl, quinolyl, quinoxalyl, thiazolyl, or thienyl; and

halogen is fluoro, chloro, bromo, or iodo; or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

- 11. The compound according to claim 10 wherein R_1 is selected from the group consisting of:
 - (i) C_{1-5} alkyl, and

 C_{1-5} alkyl substituted by substituent(s) independently selected from the group consisting of:

- •carbocyclic aryloxy,
- •carbocyclic aryloxy substituted by halogen,
- •carbocyclic aryloxy substituted by C₁₋₅ alkyl,
- •carbocyclic aryloxy substituted by C₁₋₅ alkoxy,
- •mono-C₁₋₅ alkylamino,
- •di-C₁₋₅ alkylamino,
- •mono-carbocyclic arylamino,
- •di-carbocyclic arylamino,
- •mono-carbocyclic arylamino substituted by halogen,
- •di-carbocyclic arylamino substituted by halogen,
- •carbocyclic aryl,
- •carbocyclic aryl by substituent(s) independently selected from the group consisting of:
 - ∘∘halogen,
 - ••C₁₋₅ alkyl, and
 - ••C₁₋₅ alkoxy,

and

- •heterocyclyl,
- (ii) carbocyclic aryl, and

carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

- •halogen,
- •nitro,
- hydroxy,
- •cyano,
- •C₁₋₅ alkyl,
- •C₁₋₅ alkyl substituted by halogen,
- •C₁₋₅ alkoxycarbonyl,
- •C₁₋₅ alkoxy,
- •C₁₋₅ alkoxy substituted by halogen,
- ·carbocyclic aryloxy, and
- •carbocyclic aryloxy substituted by C₁₋₅ alkoxy,
- (iii) heterocyclyl, and

heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

- ·halogen,
- •nitro,
- •C₁₋₅ alkyl,
- •carbocyclic aryloxy,
- ocarbocyclic aryloxy substituted by halogen,
- •carbocyclic aryloxy substituted by C₁₋₅ alkyl,
- °carbocyclic aryloxy substituted by C₁₋₅ alkoxy,
- •carbocyclic aryl,
- •carbocyclic aryl substituted by halogen,

869

•carbocyclic aryl substituted by nitro, and

•heterocyclyl;

wherein carbocyclic aryl is phenyl;

heterocyclyl is 1*H*-indolyl, 1*H*-pyrrolyl, 9*H*-xanthenyl,

benzo[2,1,3]oxadiazolyl, benzo[1,2,5]oxadiazolyl, furyl, isoxazolyl, pyridyl, thiazolyl, or thienyl; and

halogen is fluoro, chloro, bromo, or iodo; or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

12. The compound according to claim 1 selected from the group consisting of:

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-3-methoxybenzamide;

3-bromo-N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-benzamide;

4-bromo-N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-benzamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-2,1,3-benzoxadiazole-5-carboxamide;

3-chloro-N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-benzamide;

4-chloro-N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-benzamide;

4-chloro-N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-3-nitrobenzamide;

3-cyano-N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-benzamide;

3,5-dichloro-N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}-cyclohexyl)benzamide;

3,4-dichloro-N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}-cyclohexyl)benzamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-2,2-diphenylacetamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-3,4-difluorobenzamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-3,5-difluorobenzamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-4-fluorobenzamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-3-fluoro-5-(trifluoromethyl)benzamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-4-methyl-3-nitrobenzamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-3-nitrobenzamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-2-

phenoxybutanamide;

difluorobenzamide:

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-2-phenoxypropanamide;

 $N-(cis-4-\{[4-(dimethylamino)quinolin-2-yl]amino\} cyclohexyl)-3-methylbenzamide;$

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-3-(trifluoromethoxy)benzamide;

4-bromo-N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-3-methylbenzamide;

 $N-(cis-4-\{[4-(dimethylamino)quinolin-2-yl]amino\} cyclohexyl)-3-iodobenzamide;\\$

3-chloro-N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-2,4-

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-2,5-dimethyl-3-furamide;

3-chloro-N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-4-fluorobenzamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-3-fluoro-4-methylbenzamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-3,5-dimethoxybenzamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-3,5-bis(trifluoromethyl)benzamide;

(2E)-N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-3-(4-nitrophenyl)acrylamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-4-fluoro-3-methylbenzamide;

2,5-dichloro-N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}-cyclohexyl)thiophene-3-carboxamide;

2-(4-chlorophenoxy)-N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}-cyclohexyl)acetamide;

3-(2-chlorophenyl)-N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}-cyclohexyl)-5-methylisoxazole-4-carboxamide;

1-(4-chlorophenyl)-N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}-cyclohexyl)cyclopentanecarboxamide;

3-(2-chloro-6-fluorophenyl)-N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-5-methylisoxazole-4-carboxamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-3-fluorobenzamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-4-fluoro-3-(trifluoromethyl)benzamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-5-methyl-2-phenyl-2H-1,2,3-triazole-4-carboxamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-2-(4-methoxyphenoxy)-5-nitrobenzamide;

 $N-(cis-4-\{[4-(dimethylamino)quinolin-2-yl]amino\} cyclohexyl)-5-nitro-2-furamide;$

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-2-phenoxyacetamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)quinoxaline-2-carboxamide;

2-(3-chlorophenoxy)-N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}-cyclohexyl)acetamide;

3-(2,6-dichlorophenyl)-N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}-cyclohexyl)-5-methylisoxazole-4-carboxamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-2-phenoxynicotinamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-2-(4-methylphenoxy)nicotinamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-2-(2-thienyl)-1,3-thiazole-4-carboxamide;

 $\label{lem:condition} 5-bromo-N-(cis-4-\{[4-(dimethylamino)quinolin-2-yl]amino\}\ cyclohexyl)-thiophene-2-carboxamide;$

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-2-(2,3,6-trichlorophenyl)acetamide;

5-(4-chloro-2-nitrophenyl)-N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-2-furamide;

5-chloro-N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-thiophene-2-carboxamide:

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-5-iodo-2-furamide;
N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-2-(2-

iodophenyl)acetamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-2-(5-methoxy-2-methyl-1H-indol-3-yl)acetamide;

(2E)-N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-3-(3-nitrophenyl)acrylamide;

2,2-bis(4-chlorophenyl)-N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]-amino}cyclohexyl)acetamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-5-nitrothiophene-2-carboxamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-3-methyl-4-nitrobenzamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-3-methoxy-4-nitrobenzamide;

5-bromo-N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-2-furamide;

 $\label{lem:condition} 4,5-dibromo-N-(cis-4-\{[4-(dimethylamino)quinolin-2-yl]amino\}-cyclohexyl) thiophene-2-carboxamide;$

4,5-dibromo-N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}-cyclohexyl)-2-furamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-2-(1H-indol-3-yl)acetamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-2-(1H-indol-3-yl)-4-oxo-4-phenylbutanamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-2-(2-phenyl-1H-indol-3-yl)acetamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-2-(2,4,6-trichlorophenoxy)acetamide;

3-(benzyloxy)-N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}-cyclohexyl)-4-methoxybenzamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-2-phenoxybenzamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-2-phenylquinoline-4-carboxamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-5-(3-nitrophenyl)-2-furamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-5-nitrothiophene-3-carboxamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-1-methyl-4-nitro-1H-pyrrole-2-carboxamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-4-nitrobenzamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-2-methoxy-4-nitrobenzamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-3-fluoro-4-(trifluoromethyl)benzamide;

 $N-(cis-4-\{[4-(dimethylamino)quinolin-2-yl]amino\} cyclohexyl)-3,5-dimethyl-4-nitrobenzamide;$

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-2-mesityl-2-oxoacetamide;

5-chloro-N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-2-hydroxybenzamide;

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)methyl]-3-methoxybenzamide;

3-bromo-N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-methyl]benzamide;

4-bromo-N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-methyl]benzamide;

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)methyl]-2,1,3-benzoxadiazole-5-carboxamide;

3-chloro-N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-methyl]benzamide;

4-chloro-N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-methyl]benzamide;

4-chloro-N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-methyl]-3-nitrobenzamide;

3-cyano-N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-methyl]benzamide;

3,5-dichloro-N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}-cyclohexyl)methyl]benzamide;

3,4-dichloro-N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}-cyclohexyl)methyl]benzamide;

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)methyl]-2,2-diphenylacetamide;

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)methyl]-3,4-difluorobenzamide;

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)methyl]-3,5-difluorobenzamide;

 $N-[(cis-4-\{[4-(dimethylamino)quinolin-2-yl]amino\} cyclohexyl) methyl]-4-fluorobenzamide;$

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)methyl]-3-fluoro-5-(trifluoromethyl)benzamide;

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)methyl]-4-methyl-3-nitrobenzamide;

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)methyl]-3-nitrobenzamide;

 $N-[(cis-4-\{[4-(dimethylamino)quinolin-2-yl]amino\} cyclohexyl) methyl]-2-phenoxybutanamide; \\$

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)methyl]-2-phenoxypropanamide;

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)methyl]-3-methylbenzamide;

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)methyl]-3-(trifluoromethoxy)benzamide;

4-bromo-N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-methyl]-3-methylbenzamide;

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)methyl]-3-iodobenzamide;

3-chloro-N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-methyl]-2,4-difluorobenzamide;

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)methyl]-2,5-dimethyl-3-furamide;

3-chloro-N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-methyl]4-fluorobenzamide;

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)methyl]-3-fluoro-4-methylbenzamide;

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)methyl]-3,5-dimethoxybenzamide;

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)methyl]-3,5-bis(trifluoromethyl)benzamide;

(2E)-N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-methyl]-3-(4-nitrophenyl)acrylamide;

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)methyl]-4-fluoro-3-methylbenzamide;

2,5-dichloro-N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}-cyclohexyl)methyl]thiophene-3-carboxamide;

2,6-dichloro-N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}-cyclohexyl)methyl]benzamide;

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)methyl]-2,4,6-trimethylbenzamide;

2,4,6-trichloro-N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}-cyclohexyl)methyl]benzamide;

(2E)-3-(2-chlorophenyl)-N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)methyl]acrylamide;

5-bromo-N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-methyl]thiophene-2-carboxamide;

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)methyl]-2-(2,3,6-trichlorophenyl)acetamide;

5-(4-chloro-2-nitrophenyl)-N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)methyl]-2-furamide;

5-chloro-N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-methyl]thiophene-2-carboxamide;

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)methyl]-5-iodo-2-furamide;

 $N-[(cis-4-\{[4-(dimethylamino)quinolin-2-yl]amino\}cyclohexyl)methyl]-2-(2-iodophenyl)acetamide;\\$

(2E)-N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-methyl]-3-(3-nitrophenyl)acrylamide;

2,2-bis(4-chlorophenyl)-N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)methyl]acetamide;

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)methyl]-5-nitrothiophene-2-carboxamide;

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)methyl]-3-methyl-4-nitrobenzamide;

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)methyl]-3-methoxy-4-nitrobenzamide;

N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-2-phenoxy-nicotinamide;

3,4-difluoro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;

3,4-difluoro-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-benzamide;

2-phenoxy-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-nicotinamide;

3-chloro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;

N-[cis-4-(4-chloro-quinolin-2-ylamino)-cyclohexyl]-2-phenoxy-nicotinamide;

3-methyl-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-benzamide;

3-methoxy-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-benzamide;

3-chloro-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-benzamide;

5-nitro-thiophene-3-carboxylic acid [cis-4-(quinolin-2-ylamino)-cyclohexyl]-amide;

5-nitro-thiophene-3-carboxylic acid [cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-amide;

3-chloro-4-fluoro-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-benzamide;

3,5-dimethoxy-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-benzamide;

3,4-dichloro-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-benzamide;

benzo[2,3,1]oxadiazole-5-carboxylic acid [cis-4-(quinolin-2-ylamino)-cyclohexyl]-amide;

3-methyl-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;

3-methoxy-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide:

4-cyano-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;

1-methyl-4-nitro-1H-pyrrole-2-carboxylic acid [cis-4-(quinolin-2-ylamino)-cyclohexyl]-amide;

9H-xanthene-9-carboxylic acid [cis-4-(quinolin-2-ylamino)-cyclohexyl]-amide;

5-(4-chloro-phenyl)-furan-2-carboxylic acid [cis-4-(quinolin-2-ylamino)-cyclohexyl]-amide;

3-nitro-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-benzamide;

4-fluoro-3-methyl-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-benzamide;

3-bromo-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-benzamide;

2-(2-bromo-phenoxy)-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-nicotinamide;

3-cyano-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-benzamide;

N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-trifluoromethyl-benzamide;

N-[cis-4-(4-chloro-quinolin-2-ylamino)-cyclohexyl]-3,4-difluoro-benzamide;

3,4-dichloro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;

3-chloro-4-fluoro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;

4-fluoro-3-methyl-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-

benzamide;

1-methyl-4-nitro-1H-pyrrole-2-carboxylic acid [cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-amide;

9H-xanthene-9-carboxylic acid [cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-amide;

5-bromo-furan-2-carboxylic acid [cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-amide;

N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-2-m-tolyloxy-acetamide;

N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-2-m-tolyloxy-acetamide;

2,2-diphenyl-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-acetamide;

5-bromo-furan-2-carboxylic acid [cis-4-(quinolin-2-ylamino)-cyclohexyl]-amide;

benzo[2,3,1]oxadiazole-5-carboxylic acid [cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-amide;

3-bromo-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;

3-cyano-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;

N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-3-trifluoromethyl-benzamide:

N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-2,2-diphenyl-acetamide;

2-(4-fluoro-phenoxy)-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-nicotinamide;

2-(4-fluoro-phenoxy)-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide;

2-(3,4-difluoro-phenoxy)-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-nicotinamide;

2-(3,4-difluoro-phenoxy)-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide;

N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-2-p-tolyloxy-nicotinamide;

N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-2-p-tolyloxy-nicotinamide:

2-(4-chloro-phenoxy)-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-nicotinamide:

2-(4-chloro-phenoxy)-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide;

2-(4-bromo-phenoxy)-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-nicotinamide;

2-(4-bromo-phenoxy)-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide;

2-(4-methoxy-phenoxy)-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-nicotinamide:

2-(4-methoxy-phenoxy)-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide;

2-(3-chloro-4-fluoro-phenoxy)-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-nicotinamide;

2-(3-chloro-4-fluoro-phenoxy)-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide;

- N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-2-m-tolyloxy-nicotinamide;
- N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-2-m-tolyloxy-nicotinamide;
- 2-(3-methoxy-phenoxy)-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-acetamide;
- 2-(3-chloro-phenoxy)-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]- acetamide;
- 2-(3-chloro-4-fluoro-phenoxy)-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-acetamide;
- 2-(3,4-dichloro-phenoxy)-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-acetamide;
- C-(methyl-phenyl-amino)-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-acetamide;
- 2-(3,4-dichloro-phenylamino)-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-acetamide;
 - 2-(3-methoxy-phenoxy)-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-acetamide;
 - 2-(3-chloro-phenoxy)-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-acetamide;
- $\label{eq:continuous} \hbox{2-(3-chloro-4-fluoro-phenoxy)-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-$$ acetamide;$
 - 2-(3,4-dichloro-phenoxy)-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-acetamide;
 - C-(methyl-phenyl-amino)-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-acetamide;
- 2-(3,4-dichloro-phenylamino)-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-acetamide;
 - 3-hydroxy-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-benzamide;
 - N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-isophthalamic acid methyl ester:
 - N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-3-trifluoromethoxy-benzamide;
- N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-bis-trifluoromethyl-

benzamide:

N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-3-trifluoromethoxybenzamide;

N-[cis-4-(4-amino-quinolin-2-ylamino)-cyclohexyl]-3,4-difluoro-benzamide;
C-(ethyl-phenyl-amino)-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-acetamide;
C-(ethyl-phenyl-amino)-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-acetamide;

3-hydroxy-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;
2-amino-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide;
2,3-difluoro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;
2,4-difluoro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;
2,5-difluoro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;
2,6-difluoro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;
3,5-difluoro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;
C-[(4-chloro-phenyl)-ethyl-amino]-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-acetamide;

4-chloro-3-fluoro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;
4-fluoro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;
3-fluoro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;
2-fluoro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;
4-chloro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;
N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-isophthalamic acid methyl ester;

3,5-difluoro-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-benzamide;
4-chloro-3-fluoro-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-benzamide;
C-[(4-chloro-phenyl)-ethyl-amino]-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-acetamide;

6-chloro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide;

6-dimethylamino-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide;

3-hydroxymethyl-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;
N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-isophthalamide;
3-chloro-5-fluoro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;
3,4,5-trifluoro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;
pyridine-2-carboxylic acid [cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-amide;

4-chloro-pyridine-2-carboxylic acid [cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-amide;

5-bromo-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide;
N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-6-trifluoromethyl-nicotinamide;

3,4-difluoro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexylmethyl]-benzamide;

N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexylmethyl]-2-phenoxy-nicotinamide;

N-[cis-4-(4-dimethylamino-quinolin-2-ylamino)-cyclohexylmethyl]-3,4-difluorobenzamide;

3,4-difluoro-N-[cis-4-(quinolin-2-ylamino)-cyclohexylmethyl]-benzamide;

 $\hbox{$2$-phenoxy-N-[cis-4-(quinolin-2-ylamino)-cyclohexylmethyl]-nicotina mide;}$

2-(4-chlorophenoxy)-N-{cis-4-[(4-methylquinolin-2-

yl)amino]cyclohexyl}acetamide;

3,4,5-trimethoxy-N-{cis-4-[(4-methylquinolin-2-yl)amino]cyclohexyl}benzamide;

 $\hbox{2-(3,4-difluor ophenyl)-N-\{cis-4-[(4-methylquino lin-2-methylquino lin-2-methylq$

yl)aminolcyclohexyl}acetamide;

2-(2-bromo-4,5-dimethoxyphenyl)-N-{cis-4-[(4-methylquinolin-2-yl)amino]cyclohexyl}acetamide;

2,6-dimethoxy-N-{cis-4-[(4-methylquinolin-2-yl)amino]cyclohexyl}nicotinamide;
N-{cis-4-[(4-methylquinolin-2-yl)amino]cyclohexyl}-4(trifluoromethoxy)benzamide;

5-chloro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide; and 5-fluoro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide; or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

13. The compound according to claim 12 selected from the group consisting of:

3-bromo-N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-benzamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-2,1,3-benzoxadiazole-5-carboxamide;

3-chloro-N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-benzamide;

4-chloro-N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-benzamide;

4-chloro-N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-3-nitrobenzamide;

3,4-dichloro-N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}-cyclohexyl)benzamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-3,4-difluorobenzamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-4-fluorobenzamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-3-nitrobenzamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-2-phenoxybutanamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-2-phenoxypropanamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-3-methylbenzamide;

4-bromo-N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-3-methylbenzamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-2,5-dimethyl-3-furamide;

3-chloro-N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-4-fluorobenzamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-3,5-dimethoxybenzamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-4-fluoro-3-methylbenzamide;

2-(4-chlorophenoxy)-N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}-cyclohexyl)acetamide;

3-(2-chlorophenyl)-N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}-cyclohexyl)-5-methylisoxazole-4-carboxamide;

3-(2-chloro-6-fluorophenyl)-N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-5-methylisoxazole-4-carboxamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-4-fluoro-3-(trifluoromethyl)benzamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-2-(4-methoxyphenoxy)-5-nitrobenzamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-5-nitro-2-furamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-2-phenoxyacetamide;

2-(3-chlorophenoxy)-N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}-cyclohexyl)acetamide;

3-(2,6-dichlorophenyl)-N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}-cyclohexyl)-5-methylisoxazole-4-carboxamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-2-phenoxynicotinamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-2-(4-methylphenoxy)nicotinamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-2-(2-thienyl)-1,3-thiazole-4-carboxamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-2-(2,3,6-trichlorophenyl)acetamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-5-iodo-2-furamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-5-nitrothiophene-2-carboxamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-3-methyl-4-nitrobenzamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-3-methoxy-4-nitrobenzamide;

5-bromo-N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-2-furamide;

4,5-dibromo-N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}-cyclohexyl)-2-furamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-2-(1H-indol-3-yl)acetamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-5-(3-nitrophenyl)-2-furamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-5-nitrothiophene-3-carboxamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-1-methyl-4-nitro-1H-pyrrole-2-carboxamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-4-nitrobenzamide;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-3-fluoro-4-(trifluoromethyl)benzamide;

3-bromo-N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-methyl]benzamide;

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)methyl]-2,1,3-benzoxadiazole-5-carboxamide;

3-chloro-N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-methyl]benzamide;

4-chloro-N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-methyl]benzamide;

4-chloro-N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-methyl]-3-nitrobenzamide;

3,4-dichloro-N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}-cyclohexyl)methyl]benzamide;

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)methyl]-3,4-difluorobenzamide;

 $N-[(cis-4-\{[4-(dimethylamino)quinolin-2-yl]amino\}cyclohexyl)methyl]-4-fluorobenzamide;\\$

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)methyl]-3-nitrobenzamide;

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)methyl]-2-phenoxybutanamide;

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)methyl]-2-phenoxypropanamide;

 $N-[(cis-4-\{[4-(dimethylamino)quinolin-2-yl]amino\}cyclohexyl)methyl]-3-methylbenzamide;$

4-bromo-N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-methyl]-3-methylbenzamide;

 $N-[(cis-4-\{[4-(dimethylamino)quinolin-2-yl]amino\} cyclohexyl) methyl]-2,5-dimethyl-3-furamide;$

3-chloro-N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-methyl]-4-fluorobenzamide;

 $N-[(cis-4-\{[4-(dimethylamino)quinolin-2-yl]amino\}cyclohexyl) methyl]-3,5-dimethoxybenzamide;$

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)methyl]-4-fluoro-3-methylbenzamide;

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)methyl]-2,4,6-trimethylbenzamide;

2,4,6-trichloro-N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}-cyclohexyl)methyl]benzamide;

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)methyl]-2-(2,3,6-trichlorophenyl)acetamide;

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)methyl]-5-iodo-2-furamide;

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)methyl]-5-nitrothiophene-2-carboxamide;

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)methyl]-3-methyl-4-nitrobenzamide;

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)methyl]-3-methoxy-4-nitrobenzamide;

N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-2-phenoxy-nicotinamide;

3,4-difluoro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;

3,4-difluoro-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-benzamide;

2-phenoxy-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-nicotinamide;

3-chloro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;

3-methyl-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-benzamide;

3-methoxy-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-benzamide;

3-chloro-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-benzamide;

5-nitro-thiophene-3-carboxylic acid [cis-4-(quinolin-2-ylamino)-cyclohexyl]-amide;

5-nitro-thiophene-3-carboxylic acid [cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-amide;

3-chloro-4-fluoro-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-benzamide;

3,5-dimethoxy-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-benzamide;

3,4-dichloro-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-benzamide;

benzo[2,3,1]oxadiazole-5-carboxylic acid [cis-4-(quinolin-2-ylamino)-cyclohexyl]-amide;

3-methyl-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;

3-methoxy-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;

4-cyano-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;

1-methyl-4-nitro-1H-pyrrole-2-carboxylic acid [cis-4-(quinolin-2-ylamino)-cyclohexyl]-amide;

9H-xanthene-9-carboxylic acid [cis-4-(quinolin-2-ylamino)-cyclohexyl]-amide;

3-nitro-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-benzamide;

4-fluoro-3-methyl-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-benzamide;

3-bromo-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-benzamide;

2-(2-bromo-phenoxy)-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-nicotinamide;

3-cyano-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-benzamide;

N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-trifluoromethyl-benzamide;

N-[cis-4-(4-chloro-quinolin-2-ylamino)-cyclohexyl]-3,4-difluoro-benzamide;

3,4-dichloro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;

3-chloro-4-fluoro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;

4-fluoro-3-methyl-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-

benzamide;

1-methyl-4-nitro-1H-pyrrole-2-carboxylic acid [cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-amide;

9H-xanthene-9-carboxylic acid [cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-amide;

5-bromo-furan-2-carboxylic acid [cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-amide;

N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-2-m-tolyloxy-acetamide;

N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-2-m-tolyloxy-acetamide;

2,2-diphenyl-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-acetamide;

5-bromo-furan-2-carboxylic acid [cis-4-(quinolin-2-ylamino)-cyclohexyl]-amide;

benzo[2,3,1]oxadiazole-5-carboxylic acid [cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-amide;

3-bromo-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;

3-cyano-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;

N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-3-trifluoromethyl-benzamide;

N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-2,2-diphenyl-acetamide;

2-(4-fluoro-phenoxy)-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-nicotinamide;

2-(4-fluoro-phenoxy)-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-

nicotinamide;

- 2-(3,4-difluoro-phenoxy)-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-nicotinamide;
- 2-(3,4-difluoro-phenoxy)-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide;

N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-2-p-tolyloxy-nicotinamide;

N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-2-p-tolyloxy-nicotinamide;

2-(4-chloro-phenoxy)-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-nicotinamide;

2-(4-chloro-phenoxy)-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide;

- 2-(4-bromo-phenoxy)-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-nicotinamide;
- 2-(4-bromo-phenoxy)-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide;
 - 2-(4-methoxy-phenoxy)-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-nicotinamide;
- 2-(4-methoxy-phenoxy)-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide;
- 2-(3-chloro-4-fluoro-phenoxy)-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide;

N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-2-m-tolyloxy-nicotinamide;

N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-2-m-tolyloxy-nicotinamide;

- 2-(3-methoxy-phenoxy)-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-acetamide;
- 2-(3-chloro-phenoxy)-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-acetamide:
- 2-(3-chloro-4-fluoro-phenoxy)-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-acetamide;
- 2-(3,4-dichloro-phenoxy)-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-acetamide;

benzamide:

C-(methyl-phenyl-amino)-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-acetamide;

- 2-(3-methoxy-phenoxy)-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-acetamide;
- 2-(3-chloro-phenoxy)-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-acetamide;
- 2-(3-chloro-4-fluoro-phenoxy)-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-acetamide;
 - 2-(3,4-dichloro-phenoxy)-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-acetamide;
 - C-(methyl-phenyl-amino)-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-acetamide;
- N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-3-trifluoromethoxy-
 - N-[cis-4-(4-amino-quinolin-2-ylamino)-cyclohexyl]-3,4-difluoro-benzamide;
 - C-(ethyl-phenyl-amino)-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-acetamide;
- C-(ethyl-phenyl-amino)-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-acetamide;
 - 3-hydroxy-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;
 - 2,4-difluoro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;
 - 3,5-difluoro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;
- C-[(4-chloro-phenyl)-ethyl-amino]-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-acetamide;
 - 4-chloro-3-fluoro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;
 - 4-fluoro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;
 - 3-fluoro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;
 - 4-chloro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;
- N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-isophthalamic acid methyl ester;
 - 3,5-difluoro-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-benzamide;
 - 4-chloro-3-fluoro-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-benzamide;

C-[(4-chloro-phenyl)-ethyl-amino]-N-[cis-4-(quinolin-2-ylamino)-cyclohexyl]-acetamide;

6-chloro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide;

3-chloro-5-fluoro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;

3,4,5-trifluoro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-benzamide;

5-bromo-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide;

4-methyl-N-{cis-4-[(4-methylquinolin-2-yl)amino]cyclohexyl}benzamide;

2-(4-chlorophenoxy)-N-{cis-4-[(4-methylquinolin-2-yl)amino]cyclohexyl}-acetamide;

3,4,5-trimethoxy-N-{cis-4-[(4-methylquinolin-2-yl)amino]cyclohexyl} benzamide;

2-(3,4-difluorophenyl)-N-{cis-4-[(4-methylquinolin-2-yl)amino]cyclohexyl}-

acetamide;

2-(2-bromo-4,5-dimethoxyphenyl)-N-{cis-4-[(4-methylquinolin-2-yl)amino]-cyclohexyl}acetamide;

2,6-dimethoxy-N-{cis-4-[(4-methylquinolin-2-yl)amino]cyclohexyl}nicotinamide;

N-{cis-4-[(4-methylquinolin-2-yl)amino]cyclohexyl}-4-(trifluoromethoxy)-

benzamide;

5-chloro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide; and 5-fluoro-N-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-nicotinamide; or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

14. The compound according to claim 3 wherein R_1 is selected from the group consisting of:

C₁₋₁₆ alkyl, and

C₁₋₁₆ alkyl substituted by substituent(s) independently selected from the group consisting of:

·carbocyclic aryl,

•carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

894

••halogen,

 $\circ \circ C_{1-5}$ alkyl,

∘∘C₁₋₅ alkyl substituted by halogen,

∘∘C₁₋₅ alkoxy, and

••C₁₋₅ alkoxy substituted by halogen,

L is Formula (XV);

Y is $-C(O)NR_5-$;

wherein carbocyclic aryl is phenyl; and

halogen is fluoro, chloro, or bromo;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

15. The compound according to claim 14 wherein R₁ is selected from the group consisting of:

C₁₋₁₆ alkyl, and

 C_{1-16} alkyl substituted by substituent(s) independently selected from the group consisting of:

- •carbocyclic aryl,
- •carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen,
 - ••C₁₋₅ alkyl, and
 - ••C₁₋₅ alkyl substituted by halogen,

wherein carbocyclic aryl is phenyl; and

halogen is fluoro, chloro, or bromo;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

16. The compound according to claim 14 or 15 wherein R₂ is methyl; p is 0; R₃ and R₄ are both hydrogen; A and B are both single bonds; and R₅ is hydrogen;

17. The compound according to claim 1 selected from the group consisting of:

cis-N-[(1R)-1-(4-bromophenyl)ethyl]-4-[(4-methylquinolin-2-

yl)amino]cyclohexanecarboxamide;

cis-N-{(1S)-1-[3,5-bis(trifluoromethyl)phenyl]ethyl}-4-[(4-methylquinolin-2-

yl)amino]cyclohexanecarboxamide;

cis-N-[(1R)-1-(2-fluorophenyl)ethyl]-4-[(4-methylquinolin-2-

yl)amino]cyclohexanecarboxamide;

cis-N-[(1S)-1-(2-fluorophenyl)ethyl]-4-[(4-methylquinolin-2-

yl)amino]cyclohexanecarboxamide;

cis-4-[(4-methylquinolin-2-yl)amino]-N-{(1S)-1-[2-

(trifluoromethyl)phenyl]ethyl}cyclohexanecarboxamide;

cis-4-[(4-methylquinolin-2-yl)amino]-N-{(1S)-1-[3-

(trifluoromethyl)phenyl]ethyl}cyclohexanecarboxamide;

cis-N-[(1R)-1-(4-chlorophenyl)ethyl]-4-[(4-methylquinolin-2-

yl)amino]cyclohexanecarboxamide; and

cis-N-[(1S)-1-(4-chlorophenyl)ethyl]-4-[(4-methylquinolin-2-

yl)amino]cyclohexanecarboxamide;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

18. The compound according to claim 1 selected from the group consisting of:

cis-N-[(1R)-1-(4-bromophenyl)ethyl]-4-[(4-methylquinolin-2-

yl)amino]cyclohexanecarboxamide;

cis-N-[(1S)-1-(2-fluorophenyl)ethyl]-4-[(4-methylquinolin-2-

yl)amino]cyclohexanecarboxamide;

cis-4-[(4-methylquinolin-2-yl)amino]-N-{(1S)-1-[2-

(trifluoromethyl)phenyl]ethyl}cyclohexanecarboxamide; and

WO 2004/087669

896

cis-4-[(4-methylquinolin-2-yl)amino]-N-{(1S)-1-[3-(trifluoromethyl)phenyl]ethyl}cyclohexanecarboxamide;
or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

- 19. The compound according to claim 3 wherein R₁ is selected from the group consisting of:
 - (i) C_{1-5} alkyl, and

C₁₋₅ alkyl substituted by substituent(s) independently selected from the group consisting of:

- •C₁₋₅ alkoxycarbonyl,
- •C₁₋₅ alkylthio,
- •carbocyclic aryl,
- •carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen,
 - ••C₁₋₅ alkyl, and
 - ••C₂₋₅ alkenyl,
- (ii) C_{3-6} cycloalkyl, and C_{3-6} cycloalkyl substituted by carbocyclic aryl,
- (iii) carbocyclic aryl, and
 carbocyclic aryl substituted by substituent(s) independently selected from
 the group consisting of:
 - •halogen,
 - •cyano,
 - onitro,
 - °C₁₋₅ alkyl,
 - °C₁₋₅ alkyl substituted by halogen,
 - •C₁₋₅ alkoxycarbonyl,
 - •C₁₋₅ alkoxy,

897

- •C₁₋₅ alkoxy substituted by carbocyclic aryl,
- °C₃₋₆ cycloalkoxy,
- ocarbocyclic aryloxy,
- °C₁₋₅ alkylthio, and
- ocarbocyclic aryl,
- (iv) heterocyclyl, and

heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

- •C₁₋₅ alkyl,
- •C₁₋₅ alkyl substituted by halogen, and
- •carbocyclic aryl;
- L is Formula (VII);

Y is $-C(O)NR_5$ -;

wherein carbocyclic aryl is phenyl or naphthyl;

heterocyclyl is 2,3-dihydro-benzo[1,4]dioxinyl, 3,4-dihydro-2*H*-

benzo[b][1,4]dioxepinyl, benzo[1,3]dioxolyl, furyl, or isoxazolyl; and

halogen is fluoro, chloro, bromo, or iodo;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

- 20. The compound according to claim 19 wherein R₂ is hydrogen, methyl, methylamino, or dimethylamino; p is 0; R₃ and R₄ are hydrogen; A is a single bond; B is a single bond or -CH₂-; R₅ is hydrogen; or a pharmaceutically acceptable salt, hydrate, or solvate thereof.
- 21. The compound according to claim 20 wherein R₁ is selected from the group consisting of:
 - (i) C_{1-5} alkyl, and

C₁₋₅ alkyl substituted by substituent(s) independently selected from the

group consisting of:

•C₁₋₅ alkoxycarbonyl,

898

- carbocyclic aryl, and
 carbocyclic aryl substituted by halogen,
- (ii) carbocyclic aryl, andcarbocyclic aryl substituted by substituent(s) independently selected fromthe group consisting of:
 - ohalogen,
 - •nitro.
 - °C₁₋₅ alkyl,
 - •C₁₋₅ alkyl substituted by halogen, and
 - •C₁₋₅ alkoxy,
- (iii) heterocyclyl,

heterocyclyl substituted by C₁₋₅ alkyl, and heterocyclyl substituted by carbocyclic aryl;

wherein carbocyclic aryl is phenyl or naphthyl;

heterocyclyl is isoxazolyl; and

halogen is fluoro, chloro, bromo, or iodo;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

22. The compound according to claim 1 selected from the group consisting of:

 $N-(2-chlorophenyl)-N'-(cis-4-\{[4-(dimethylamino)quinolin-2-yl]amino\}-cyclohexyl)urea;\\$

 $N-(cis-4-\{[4-(dimethylamino)quinolin-2-yl]amino\} cyclohexyl)-N'-(2-ethyl-6-methylphenyl)urea;$

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-N'-mesitylurea;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-N'-(2,4,6-trichlorophenyl)urea;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-N'-(2,4,6-tribromophenyl)urea;

N-(2,4-dibromo-6-fluorophenyl)-N'-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)urea;

 $\label{eq:N-2-diethylphenyl} N-(2,6-diethylphenyl)-N'-(cis-4-\{[4-(dimethylamino)quinolin-2-yl]amino\}-cyclohexyl)urea;$

 $N-(2-chlorobenzyl)-N'-(cis-4-\{[4-(dimethylamino)quinolin-2-yl]amino\}-cyclohexyl)urea;\\$

 $N-(cis-4-\{[4-(dimethylamino)quinolin-2-yl]amino\}\ cyclohexyl)-N'-(2-ethyl-6-isopropylphenyl)\ urea;$

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-N'-(2-isopropyl-6-methylphenyl)urea;

 $N-(2-tert-butyl-6-methylphenyl)-N'-(cis-4-\{[4-(dimethylamino)quinolin-2-yl]amino\}cyclohexyl)urea;$

 $N-(cis-4-\{[4-(dimethylamino)quinolin-2-yl]amino\} cyclohexyl)-N'-(diphenylmethyl)urea;$

N-(4-bromo-2,6-dimethylphenyl)-N'-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)urea;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-N'-(3-methyl-5-phenylisoxazol-4-yl)urea;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-N'-1-naphthylurea;

 $N-(cis-4-\{[4-(dimethylamino)quinolin-2-yl]amino\}\ cyclohexyl)-N'-[1-(1-naphthyl)ethyl]\ urea;$

methyl N-{[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-amino]carbonyl}phenylalaninate;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-N'-(3,4,5-trimethoxyphenyl)urea;

N-(5-chloro-2,4-dimethoxyphenyl)-N'-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)urea;

N-(4-bromo-2-methylphenyl)-N'-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)urea;

 $N-[(cis-4-\{[4-(dimethylamino)quinolin-2-yl]amino\} cyclohexyl) methyl]-N'-(2-ethyl-6-methylphenyl) urea;$

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)methyl]-N'-mesitylurea;

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)methyl]-N'-(2,4,6-trichlorophenyl)urea;

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)methyl]-N'-(2,4,6-tribromophenyl)urea;

N-(2,4-dibromo-6-fluorophenyl)-N'-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)methyl]urea;

N-(2,6-diethylphenyl)-N'-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}-cyclohexyl)methyl]urea;

N-[2-chloro-6-(trifluoromethyl)phenyl]-N'-[(cis-4-{[4-(dimethylamino)-quinolin-2-yl]amino}cyclohexyl)methyl]urea;

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)methyl]-N'-(2-ethyl-6-isopropylphenyl)urea;

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)methyl]-N'-(2-isopropyl-6-methylphenyl)urea;

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)methyl]-N'-(2-methyl-3-nitrophenyl)urea;

N-(2-tert-butyl-6-methylphenyl)-N'-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)methyl]urea;

N-(2-tert-butylphenyl)-N'-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]-amino}cyclohexyl)methyl]urea;

N-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)methyl]-N'-(diphenylmethyl)urea;

N-(4-bromo-2,6-dimethylphenyl)-N'-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)methyl]urea;

N-(2,3-dichlorophenyl)-N'-[(cis-4-{[4-(dimethylamino)quinolin-2-yl]-amino}cyclohexyl)methyl]urea;

 $N-(2,6-diisopropylphenyl)-N'-[(cis-4-\{[4-(dimethylamino)quinolin-2-yl]-amino\}cyclohexyl)methyl]urea; \\$

1-(2,3-dichloro-phenyl)-3-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexyl]-urea; and

1-(2,3-dichloro-phenyl)-3-[cis-4-(4-methyl-quinolin-2-ylamino)-cyclohexylmethyl]-urea;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

- 23. The compound according to claim 3 wherein R_1 is selected from the group consisting of:
 - (i) C_{1-5} alkyl, and

C₁₋₅ alkyl substituted by substituent(s) independently selected from the group consisting of:

- ·carbocyclic aryl,
- •carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen, and
 - ••C₁₋₅ alkoxy,
- (ii) carbocyclyl,
- (iii) carbocyclic aryl, andcarbocyclic aryl substituted by substituent(s) independently selected fromthe group consisting of:
 - •halogen,
 - •cyano,
 - •nitro,

902

- •C₁₋₅ alkyl,

 •C₁₋₅ alkyl substituted by halogen,

 •C₁₋₅ alkoxy carbonyl,

 •C₁₋₅ alkoxy,

 •C₁₋₅ alkoxy substituted by halogen,

 •mono-C₁₋₅ alkylamino,

 •di-C₁₋₅ alkylamino, and

 •carbocyclic aryl,
- (iv) heterocyclyl, and

heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

- •C₁₋₅ alkyl,
- ${}^{ullet}C_{1-5}$ alkoxy carbonyl, and
- •carbocyclic aryl;

L is Formula (VII);

Y is $-C(S)NR_5$ -;

wherein carbocyclic aryl is phenyl or naphthyl;

carbocyclyl is bicyclo[2.2.1]heptyl;

heterocyclyl is 2,3-dihydro-benzo[1,4]dioxinyl, benzo[1,3]dioxolyl,

isoxazolyl, or thienyl; and

halogen is fluoro, chloro, bromo, or iodo;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

- 24. The compound according to claim 23 wherein R₂ is methylamino or dimethylamino; p is 0; R₃ and R₄ are hydrogen; A is a single bond; B is a single bond or -CH₂-; R₅ is hydrogen; or a pharmaceutically acceptable salt, hydrate, or solvate thereof.
- 25. The compound according to claim 24 wherein R₁ is selected from the group consisting of:

903

- (i) carbocyclic aryl, and
 - carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
 - ohalogen,
 - °C₁₋₅ alkyl,
 - °C₁₋₅ alkyl substituted by halogen,
 - ∘C₁₋₅ alkoxy,
 - emono-C₁₋₅ alkylamino, and
 - •di-C₁₋₅ alkylamino,
- (ii) heterocyclyl, and

heterocyclyl substituted by C₁₋₅ alkyl, and

heterocyclyl substituted by C_{1-5} alkoxy carbonyl;

wherein carbocyclic aryl is phenyl or naphthyl;

heterocyclyl is thienyl; and

halogen is fluoro, chloro, bromo, or iodo;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

- 26. The compound according to claim 1 selected from the group consisting of:
 - $N-(2,4-dimethoxyphenyl)-N'-(cis-4-\{[4-(dimethylamino)quinolin-2-yl]-amino\} cyclohexyl) thiourea;$

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-N'-(3,4,5-trimethoxyphenyl)thiourea;

N-[4-(dimethylamino)-1-naphthyl]-N'-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)thiourea;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-N'-(2,4,6-tribromophenyl)thiourea;

N-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-N'-(2,4,6-trichlorophenyl)thiourea;

 $N-(cis-4-\{[4-(dimethylamino)quinolin-2-yl]amino\} cyclohexyl)-N'-mesitylthiourea;$

 $N-(2,6-diethylphenyl)-N'-(cis-4-\{[4-(dimethylamino)quinolin-2-yl]amino\}-cyclohexyl) thiourea; \\$

 $N-(4-bromo-2,6-dimethylphenyl)-N'-(cis-4-\{[4-(dimethylamino)quinolin-2-yl]amino\} cyclohexyl) thiourea;$

N-(4-bromo-2-methylphenyl)-N'-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)thiourea;

N-[4-bromo-2-(trifluoromethyl)phenyl]-N'-(cis-4-{[4-(dimethylamino)-quinolin-2-yl]amino}cyclohexyl)thiourea;

N-(5-chloro-2,4-dimethoxyphenyl)-N'-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)thiourea;

 $N-(2,4-dibromo-6-fluorophenyl)-N'-(cis-4-\{[4-(dimethylamino)quinolin-2-yl]amino\}cyclohexyl) thiourea;$

N-(2,4-dichloro-6-methylphenyl)-N'-(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)thiourea; and

methyl 3-({[(cis-4-{[4-(dimethylamino)quinolin-2-yl]amino}cyclohexyl)-amino]carbonothioyl}amino)-4-methylthiophene-2-carboxylate;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

- 27. The compound according to claim 3 wherein R_1 is selected from the group consisting of:
 - (i) C_{1-8} alkyl, and

C₁₋₈ alkyl substituted by substituent(s) independently selected from the group consisting of:

- •halogen,
- ∘C₁₋₅ alkoxy,
- •C₁₋₅ alkoxy substituted by carbocyclic aryl,
- ·carbocyclyl,

905

•carbocyclic aryl,

•carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

oohalogen,

oonitro, and

∘∘C₁₋₅ alkoxy,

- (ii) C_{2-5} alkenyl,
- (iii) carbocyclyl,
- (iv) carbocyclic aryl, andcarbocyclic aryl substituted by substituent(s) independently selected fromthe group consisting of:
 - ·halogen,
 - $\cdot C_{1-5}$ alkyl,
 - •C₁₋₅ alkyl substituted by halogen, and
 - •C₁₋₅ alkoxy;

L is Formula (VII);

Y is -C(O)O-;

wherein carbocyclic aryl is phenyl or naphthyl;

carbocyclyl is 9H-fluorenyl or menthyl; and

halogen is fluoro, chloro, bromo, or iodo;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

- 28. The compound according to claim 27 wherein R₂ is methylamino or dimethylamino; p is 0; R₃ and R₄ are hydrogen; A is a single bond; B is a single bond or -CH₂-; or a pharmaceutically acceptable salt, hydrate, or solvate thereof.
- 29. The compound according to claim 2 wherein Q is Formula (III);

R₁ is selected from the group consisting of:

(i) C₁₋₈ alkyl, and

C₁₋₈ alkyl substituted by substituent(s) independently selected from the group consisting of:

- •halogen,
- °oxo,
- °C₁₋₅ alkoxy,
- •C₁₋₅ alkoxy substituted by carbocyclic aryl,
- ∘C₁₋₅ alkylcarbonyloxy,
- ·carbocyclic aryloxy,
- •carbocyclic aryloxy substituted by halogen,
- •carbocyclic aryloxy substituted by nitro,
- •heterocyclyloxy,
- •heterocyclyloxy substituted by C₁₋₅ alkyl,
- •C₁₋₅ alkoxycarbonyl,
- •mono-C₁₋₅ alkylaminocarbonyl,
- •di-C₁₋₅ alkylaminocarbonyl,
- •mono-C₁₋₅ alkylamino,
- •mono-C₁₋₅ alkylamino substituted by cyano,
- •mono-C₁₋₅ alkylamino substituted by carbocyclic aryl,
- •di-C₁₋₅ alkylamino,
- •di-C₁₋₅ alkylamino substituted by cyano,
- •di-C₁₋₅ alkylamino substituted by carbocyclic aryl,
- •mono-carbocyclic arylamino,
- •mono-carbocyclic arylamino substituted by C₁₋₅ alkyl,
- odi-carbocyclic arylamino,
- •di-carbocyclic arylamino substituted by C₁₋₅ alkyl,
- •carbocyclic arylsulfonylamino,
- •carbocyclic arylsulfonylamino substituted C₁₋₅ alkyl,

- •C₁₋₅ alkylthio,
- °C₁₋₅ alkylthio substituted by substituent(s) independently selected from the group consisting of:
 - oocarbocyclic aryl,
 - ocarbocyclic aryl substituted by halogen, and
 - ocarbocyclic aryl substituted by C₁₋₅ alkoxy,
- ocarbocyclic arylthio,
- •heterocyclylthio,
- •heterocyclylthio substituted by C₁₋₅ alkyl,
- •C₃₋₆ cycloalkyl,
- •C₃₋₆ cycloalkenyl,
- ·carbocyclyl,
- •carbocyclyl substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen,
 - ••C₁₋₅ alkyl,
 - ••C₁₋₅ alkoxy,
 - ••C₂₋₅ alkenyl, and
 - ••C₂₋₅ alkenyl substituted by substituent(s) independently selected from the group consisting of:
 - •••carbocyclic aryl, and
 - •••carbocyclic aryl substituted by C₁₋₅ alkylsulfinyl,
- ·carbocyclic aryl,
- •carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen,
 - ••hydroxy,
 - ••nitro,

908

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••C<sub>1-5</sub> alkyl,
          {}^{\circ\circ}C_{1\text{--}5} alkyl substituted by substituent(s) independently selected
         from the group consisting of:
                   °°°OXO,
                   occarbocyclic aryl, and
                   oooheterocyclyl,
         ∞C<sub>2-5</sub> alkenyl,
         ∞C<sub>1-5</sub> alkoxy,
         ••C<sub>1-5</sub> alkoxy substituted by halogen,
         ••C<sub>1-5</sub> alkoxy substituted by carbocyclic aryl,
         ··carbocyclic aryloxy,
         ••mono-carbocyclic arylaminocarbonyl,
         • mono-carbocyclic arylaminocarbonyl substituted by halogen,
         ··di-carbocyclic arylaminocarbonyl,
         ••di-carbocyclic arylaminocarbonyl substituted by halogen,
         ··carbocyclic aryl, and
         ··heterocyclyl,
•heterocyclyl, and
•heterocyclyl substituted by substituent(s) independently selected from the
group consisting of:
         ••C_{1-5} alkyl,
         ••C<sub>1-5</sub> alkoxy,
         ••C<sub>1-5</sub> alkoxy substituted by carbocyclic aryl,
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(ii) C_{2-7} alkenyl, and

ocarbocyclic aryl, and

 C_{2-7} alkenyl substituted by substituent(s) independently selected from the group consisting of:

ocarbocyclic aryl substituted by halogen,

(iii)

(iv)

(v)

(vi)

909

·carbocyclic aryl, °carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of: ∘∘halogen, oonitro, and ∘∘C₁₋₅ alkoxy, C2-5 alkynyl, C₃₋₁₂ cycloalkyl, and C₃₋₁₂ cycloalkyl substituted by substituent(s) independently selected from the group consisting of: •C₁₋₅ alkyl, •C₁₋₅ alkyl substituted by oxo, •C₁₋₅ alkyl substituted by carbocyclic aryl, and •carbocyclic aryl, carbocyclyl, carbocyclic aryl, and carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of: ·halogen, •hydroxy, •cyano, •nitro, •C₁₋₁₀ alkyl, •C₁₋₁₀ alkyl substituted by substituent(s) independently selected from the

∘∘halogen,

••oxo,

group consisting of:

••carbocyclic aryloxy,

- ··carbocyclic aryl, and
- ••carbocyclic aryl substituted by C₁₋₅ alkyl,
- °C₁₋₇ alkoxy,
- °C₁₋₇ alkoxy substituted by substituent(s) independently selected from the group consisting of:
 - oohalogen,
 - ocarbocyclic aryl, and
 - ••halogenated carbocyclic aryl,
- •C₂₋₅ alkenyloxy,
- •C₃₋₆ cycloalkoxy,
- ·carbocyclic aryloxy,
- ·carbocyclic aryloxy substituted by nitro,
- •carbocyclic aryloxy substituted by C₁₋₅ alkoxy,
- ·carboxy,
- ${}^{ullet}C_{1-5}$ alkoxycarbonyl,
- •mono-C₁₋₅ alkylaminocarbonyl,
- •di-C₁₋₅ alkylaminocarbonyl,
- •mono-C₁₋₅ alkylaminocarbonyl substituted by carbocyclic aryl,
- •di-C₁₋₅ alkylaminocarbonyl substituted by carbocyclic aryl,
- ·amino,
- •mono-C₁₋₅ alkylamino,
- •di-C₁₋₅ alkylamino,
- •mono-C₁₋₅ alkylamino substituted by cyano,
- •di-C₁₋₅ alkylamino substituted by cyano,
- ${}_{^{\circ}}C_{2\text{-}5} \text{ alkynylcarbonylamino,} \\$
- •C₂₋₅ alkynylcarbonylamino substituted by carbocyclic aryl,
- •C₁₋₅ alkoxycarbonylamino,
- •(carbocyclic aryl)NHC(O)NH,

- •(carbocyclic aryl)NHC(O)NH substituted by C₁₋₅ alkoxy,
- •(carbocyclic aryl)NHC(O)NH substituted by haloganated C₁₋₅ alkoxy,
- ocarbocyclic aryl azo,
- ocarbocyclic aryl azo substituted by mono-C1-5 alkylamino,
- °carbocyclic aryl azo substituted by di-C₁₋₅ alkylamino,
- °C₁₋₅ alkylthio,
- •C₁₋₅ alkylthio substituted by halogen,
- ocarbocyclic arylthio,
- •carbocyclic arylthio substituted by nitro,
- •carbocyclic arylthio substituted by cyano,
- •aminosulfonyl,
- •mono-C₁₋₅ alkylaminosulfonyl,
- •di-C₁₋₅ alkylaminosulfonyl,
- •heterocyclylsulfonyl,
- •C₃₋₆ cycloalkyl,
- •C₃₋₆ cycloalkyl substituted by C₁₋₅ alkyl,
- •carbocyclic aryl,
- •heterocyclyl, and
- •heterocyclyl substituted by substituent(s) independently selected from the group consisting of:
 - ••C₁₋₅ alkyl,
 - ··carbocyclic aryl, and
 - ••halogenated carbocyclic aryl,
- (vii) heterocyclyl, and

heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

- ·halogen,
- •nitro,

- •C₁₋₅ alkyl,
- °C₁₋₅ alkyl substituted by substituent(s) independently selected from the group consisting of:
 - oohalogen,
 - ••hydroxy,
 - ∘∘C₁₋₅ alkylthio,
 - ••C₁₋₅ alkylthio substituted by carbocyclic aryl,
 - ••C₁₋₅ alkylthio substituted by halogenated carbocyclic aryl,
 - ··carbocyclic aryl,
 - ··carbocyclic aryl substituted by halogen, and
 - ••heterocyclyl,
- \cdot C₁₋₅ alkoxy,
- •carbocyclic aryloxy,
- •carbocyclic aryloxy substituted by C₁₋₅ alkyl,
- •C₁₋₅ alkylthio,
- •C₂₋₅ alkenylthio,
- ·carbocyclic arylthio,
- •carbocyclic arylthio substituted by C₁₋₅ alkoxycarbonyl,
- •C₁₋₅ alkylsulfonyl,
- •carbocyclic arylsulfonyl,
- •carbocyclic arylsulfonyl substituted by C₁₋₅ alkyl,
- •C₁₋₅ alkoxycarbonyl,
- •C₁₋₅ alkoxycarbonyl substituted by carbocyclic aryl,
- ocarbocyclic aryl,
- ocarbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen,
 - ••nitro,

••C₁₋₅ alkyl, and

••C₁₋₅ alkyl substituted by halogen,

·heterocyclyl;

wherein carbocyclic aryl is phenyl, naphthyl, or anthranyl;

carbocyclyl is 1,2,3,4-tetrahydronaphthyl, 1-oxo-indanyl, 9-fluorenyl, 9*H*-fluorenyl, 9-oxo-9*H*-fluorenyl, adamantly, bicyclo[2.2.1]heptenyl, bicyclo[2.2.1]heptyl, indanyl, indenyl, or menthyl;

heterocyclyl is 1,2,3-triazolyl, 1*H*-indolyl, 1*H*-pyrrolyl, 2,3-dihydro-1-oxo-isoindolyl, 2,3-dihydro-benzo[1,4]dioxinyl, 2,4-dihydro-3-oxo-pyrazolyl, 2*H*-benzopyranyl, 2-oxo-benzopyranyl, 3,4-dihydro-2*H*-benzo[b][1,4]dioxepinyl, 4,5,6,7-tetrahydro-benzo[b]thienyl, 4*H*-benzo[1,3]dioxinyl, 4-oxo-1,5,6,7-tetrahydro-indolyl, 4-oxo-benzopyranyl, 9*H*-carbazolyl, 9*H*-xanthenyl, azetidinyl, benzo[1,3]dioxolyl, benzo[2,1,3]oxadiazolyl, benzo[1,2,5]oxadiazolyl, benzo[2,1,3]thiadiazolyl, benzo[b]thienyl, benzofuryl, benzothiazolyl, furyl, imidazo[2,1-b]thiazolyl, isoxazolyl, morpholino, morpholinyl, oxazolyl, phenanthro[9,10-d]oxazolyl, piperidyl, pyrazolyl, pyridyl, pyrimidyl, quinolyl, quinoxalyl, tetrahydrofuryl, thiazolyl, or thienyl; and

halogen is fluoro, chloro, bromo, or iodo; or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

- 30. The compound according to claim 29 wherein R₁ is selected from the group consisting of:
 - (i) C_{1-7} alkyl, and

C₁₋₇ alkyl substituted by substituent(s) independently selected from the group consisting of:

- °C₁₋₅ alkoxy,
- •C₁₋₅ alkoxy substituted by carbocyclic aryl,
- •carbocyclic aryloxy,
- •mono-C₁₋₅ alkylamino,

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•mono-C<sub>1-5</sub> alkylamino substituted by substituent(s) independently selected
from the group consisting of:
          oocyano, and
          oocarbocyclic aryl,
odi-C<sub>1-5</sub> alkylamino,
odi-C<sub>1-5</sub> alkylamino substituted by substituent(s) independently selected
from the group consisting of:
          oocyano, and
          ··carbocyclic aryl,
•mono-carbocyclic arylamino,
•di-carbocyclic arylamino,
•mono-carbocyclic arylamino substituted by C<sub>1-5</sub> alkyl,
•di-carbocyclic arylamino substituted by C<sub>1-5</sub> alkyl,
•carbocyclic arylsulfonylamino,
•carbocyclic arylsulfonylamino substituted by C<sub>1-5</sub> alkyl,
·carbocyclic aryl,
•carbocyclic aryl substituted by substituent(s) independently selected from
the group consisting of:
         ••halogen,
         ••nitro,
         ••C<sub>1-5</sub> alkyl,
         \bullet \bullet C_{1\text{--}5} alkyl substituted by substituent(s) independently selected
         from the group consisting of:
                  oooo, and
                  ooocarbocyclic aryl,
        ∘∘C<sub>1-5</sub> alkoxy,
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•heterocyclyl, and

•heterocyclyl substituted by carbocyclic aryl,

- (ii) C_{2-7} alkenyl, and
 - C₂₋₇ alkenyl substituted by substituent(s) independently selected from the group consisting of:
 - ocarbocyclic aryl, and
 - •carbocyclic aryl substituted by C₁₋₅ alkoxy,
- (iii) C₃₋₆ cycloalkyl, and
 - C₃₋₆ cycloalkyl substituted by substituent(s) independently selected from the group consisting of:
 - •C₁₋₅ alkyl, and
 - \bullet C₁₋₅ alkyl substituted by carbocyclic aryl,
- (iv) carbocyclic aryl, andcarbocyclic aryl substituted by substituent(s) independently selected fromthe group consisting of:
 - ·halogen,
 - •hydroxy,
 - •cyano,
 - •C₁₋₅ alkyl,
 - •C₁₋₅ alkyl substituted by halogen,
 - •C₁₋₅ alkoxy,
 - •C₁₋₅ alkoxy substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen, and
 - ··carbocyclic aryl,
 - ··carbocyclic aryl substituted by halogen,
 - ∘C₂₋₅ alkenyloxy,
 - •mono-C₁₋₅ alkylamino,
 - •di-C₁₋₅ alkylamino,
 - •mono-C₁₋₅ alkylamino substituted by cyano,

916

- •di-C₁₋₅ alkylamino substituted by cyano,
- °C₁₋₅ alkylthio, and
- ∘C₁₋₅ alkylthio substituted by halogen,
- (v) heterocyclyl, and

heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

- •halogen,
- ∘C₁₋₅ alkyl,
- •C₁₋₅ alkyl substituted by substituent(s) independently selected from the group consisting of:
 - ••hydroxy, and
 - ••carbocyclic aryl,
- •C₁₋₅ alkoxy,
- ·carbocyclic arylthio,
- -carbocyclic arylthio substituted by $C_{1\mbox{-}5}$ alkoxycarbonyl,
- •C₁₋₅ alkoxycarbonyl,
- •carbocyclic aryl,
- •carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen,
 - ••C₁₋₅ alkyl, and
 - ••C₁₋₅ alkyl substituted by halogen;

L is Formula (VII);

Y is a single bond or $-CH_2$ -;

wherein carbocyclic aryl is phenyl or naphthyl;

heterocyclyl is 1*H*-indolyl, 1*H*-pyrrolyl, 2,3-dihydro-benzo[1,4]dioxinyl,

4-oxo-benzopyranyl, 9H-carbazolyl, azetidinyl, benzo[1,3]dioxolyl,

benzo[b]thienyl, furyl, imidazo[2,1-b]thiazolyl, pyrazolyl, pyridyl, or thienyl; and

917

halogen is fluoro, chloro, bromo, or iodo; or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

- 31. The compound according to claim 30 wherein R₂ is methylamino or dimethylamino; p is 0;
 R₃ and R₄ are hydrogen; A is a single bond; B is a single bond or -CH₂-;
 or a pharmaceutically acceptable salt, hydrate, or solvate thereof.
- 32. The compound according to claim 31 wherein R_1 is selected from the group consisting of:
 - (i) C₁₋₅ alkyl, and

C₁₋₅ alkyl substituted by substituent(s) independently selected from the group consisting of:

- •mono-C₁₋₅ alkylamino,
- •mono-C₁₋₅ alkylamino substituted by cyano,
- •di-C₁₋₅ alkylamino,
- •di-C₁₋₅ alkylamino substituted by cyano,
- ·mono-carbocyclic arylamino,
- •di-carbocyclic arylamino,
- •mono-carbocyclic arylamino substituted by C₁₋₅ alkyl,
- •di-carbocyclic arylamino substituted by C₁₋₅ alkyl,
- ·carbocyclic arylsulfonylamino,
- •carbocyclic arylsulfonylamino substituted by C₁₋₅ alkyl,
- •carbocyclic aryl, and
- •carbocyclic aryl substituted by C₁₋₅ alkoxy,
- (ii) C_{2-5} alkenyl, and C_{2-5} alkenyl substituted by carbocyclic aryl,
- (iii) carbocyclic aryl, and carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

- ·halogen,
- ohydroxy,
- °C₁₋₅ alkyl,
- °C₁₋₅ alkoxy,
- ∘C₁₋₅ alkoxy substituted by halogen,
- omono-C₁₋₅ alkylamino, and
- •di-C₁₋₅ alkylamino,
- (iv) heterocyclyl, and

heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

- •halogen,
- •C₁₋₅ alkyl,
- •C₁₋₅ alkyl substituted by carbocyclic aryl,
- •C₁₋₅ alkoxy,
- •C₁₋₅ alkoxycarbonyl,
- ·carbocyclic aryl,
- •carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen,
 - ••C₁₋₅ alkyl, and
 - ••C₁₋₅ alkyl substituted by halogen;

wherein carbocyclic aryl is phenyl or naphthyl;

heterocyclyl is 1H-indolyl, 4-oxo-benzopyranyl, azetidinyl,

benzo[1,3]dioxolyl, or pyrazolyl; and

halogen is fluoro, chloro, bromo, or iodo;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

33. The compound according to claim 32 wherein R_1 is selected from the group consisting of:

(i) C_{1-5} alkyl, and

C₁₋₅ alkyl substituted by substituent(s) independently selected from the group consisting of:

°mono-C₁₋₅ alkylamino,

•mono-C₁₋₅ alkylamino substituted by cyano,

odi-C1-5 alkylamino,

∘di-C₁₋₅ alkylamino substituted by cyano,

«mono-carbocyclic arylamino,

•di-carbocyclic arylamino,

·carbocyclic arylsulfonylamino,

•carbocyclic arylsulfonylamino substituted by C₁₋₅ alkyl, and

·carbocyclic aryl,

(ii) C₂₋₅ alkenyl, and

C₂₋₅ alkenyl substituted by carbocyclic aryl,

(iii) carbocyclic aryl, and

carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

- ·halogen,
- •hydroxy,
- •C₁₋₅ alkoxy, and
- •C₁₋₅ alkoxy substituted by halogen,
- (iv) heterocyclyl, and

heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

- ·halogen,
- °C₁₋₅ alkyl,
- •C₁₋₅ alkyl substituted by carbocyclic aryl,
- •C₁₋₅ alkoxy,

920

•C₁₋₅ alkoxycarbonyl,

ocarbocyclic aryl, and

ocarbocyclic aryl substituted by halogen;

wherein carbocyclic aryl is phenyl;

heterocyclyl is 1H-indolyl, azetidinyl, or pyrazolyl; and

halogen is fluoro, chloro, bromo, or iodo;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

34. The compound according to claim 1 selected from the group consisting of:

 N^2 -{cis-4-[(2,6-dimethoxybenzyl)amino]cyclohexyl}- N^4 , N^4 -dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

 N^2 -{cis-4-[(2-ethoxybenzyl)amino]cyclohexyl}- N^4 , N^4 -dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

 $N^2-\{cis-4-[(1H-indol-3-ylmethyl)amino]cyclohexyl\}-N^4, N^4-dimethyl-5, 6, 7, 8-tetrahydroquinazoline-2, 4-diamine;$

N²-{cis-4-[(2,5-dimethoxybenzyl)amino]cyclohexyl}-N⁴,N⁴-dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

 N^2 -(cis-4-{[(4-methoxy-1-naphthyl)methyl]amino}cyclohexyl)- N^4 , N^4 -dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

 N^2 -(cis-4-{[(5-methoxy-1H-indol-3-yl)methyl]amino}cyclohexyl)- N^4 , N^4 -dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

4-bromo-2-{[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)amino]methyl}-6-methoxyphenol;

 N^2 -(cis-4-{[(5-bromo-1H-indol-3-yl)methyl]amino}cyclohexyl)- N^4 , N^4 -dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

4-{[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)amino]methyl}-2,6-dimethoxyphenol;

 $N^2-\{cis-4-[(3-ethoxy-4-methoxybenzyl)amino]cyclohexyl\}-N^4,N^4-dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;$

N⁴,N⁴-dimethyl-N²-{cis-4-[({3-[4-(trifluoromethyl)phenyl]-1H-pyrazol-4-yl}methyl)amino]cyclohexyl}-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

 N^4 , N^4 -dimethyl- N^2 -{cis-4-[(3,4,5-trimethoxybenzyl)amino]cyclohexyl}-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

 N^4 , N^4 -dimethyl- N^2 -{cis-4-[(pentamethylbenzyl)amino]cyclohexyl}-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

N²-{cis-4-[(3,5-dimethoxybenzyl)amino]cyclohexyl}-N⁴,N⁴-dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

4-{[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)amino]methyl}-2-iodo-6-methoxyphenol;

4-{[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)amino]methyl}-2,6-dimethylphenol;

3-{[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)amino]methyl}-6,8-dimethyl-4H-chromen-4-one;

ethyl 4,6-dichloro-3-{[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-vl]amino}cyclohexyl)amino]methyl}-1H-indole-2-carboxylate;

 N^2 -[cis-4-({[3-(4-fluorophenyl)-1H-pyrazol-4-yl]methyl}amino)cyclohexyl]- N^4 , N^4 -dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

 N^4 , N^4 -dimethyl- N^2 -[4-(pentamethylphenylmethyl-amino)-cyclohexyl]-5,6,7,8-tetrahydro-quinazoline-2,4-diamine;

3-[{2-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)amino]ethyl}(3-methylphenyl)amino]propanenitrile;

3-[{2-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)amino]ethyl}(phenyl)amino]propanenitrile;

N-{(1S)-1-benzyl-2-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)amino]ethyl}-4-methylbenzenesulfonamide;

 N^2 -(cis-4-{[2-(3,5-dimethoxyphenyl)ethyl]amino}cyclohexyl)- N^4 , N^4 -dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

 $N^2-[cis-4-(\{[1-(diphenylmethyl)azetidin-3-yl]methyl\}amino)cyclohexyl]-N^4,N^4-dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;$

 N^2 -(cis-4-{[(2,6-dimethoxybenzyl)amino]methyl}cyclohexyl)- N^4 , N^4 -dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

 N^2 -(cis-4-{[(2-ethoxybenzyl)amino]methyl}cyclohexyl)- N^4 , N^4 -dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

N²-(cis-4-{[(1H-indol-3-ylmethyl)amino]methyl}cyclohexyl)-N⁴,N⁴-dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

 N^2 -(cis-4-{[(2,5-dimethoxybenzyl)amino]methyl}cyclohexyl)- N^4 , N^4 -dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

N²-[cis-4-({[(4-methoxy-1-naphthyl)methyl]amino}methyl)cyclohexyl]-N⁴,N⁴-dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

N²-[cis-4-({[(5-methoxy-1H-indol-3-yl)methyl]amino}methyl)cyclohexyl]-N⁴,N⁴-dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

4-bromo-2-({[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)methyl]amino}methyl)-6-methoxyphenol;

N²-[cis-4-({[(5-bromo-1H-indol-3-yl)methyl]amino}methyl)cyclohexyl]-N⁴,N⁴-dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

 $N^2-(cis-4-\{[(3-ethoxy-4-methoxybenzyl)amino]methyl\}cyclohexyl)-N^4,N^4-dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;$

N⁴,N⁴-dimethyl-N²-(cis-4-{[({3-[4-(trifluoromethyl)phenyl]-1H-pyrazol-4-yl}methyl)amino]methyl}cyclohexyl)-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

 N^4 , N^4 -dimethyl- N^2 -(cis-4-{[(3,4,5-trimethoxybenzyl)amino]-methyl}cyclohexyl)-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

 N^2 -(cis-4-{[(3,5-dimethoxybenzyl)amino]methyl}cyclohexyl)- N^4 , N^4 -dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

4-({[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-

yl]amino}cyclohexyl)methyl]amino}methyl)-2-iodo-6-methoxyphenol;

4-({[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-

yl]amino}cyclohexyl)methyl]amino}methyl)-2,6-dimethylphenol;

3-chloro-4-({[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)methyl]amino}methyl)phenol;

 N^2 -[cis-4-({[4-(diethylamino)benzyl]amino}methyl)cyclohexyl]- N^4 , N^4 -dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

 N^2 -(cis-4-{[(3,3-diphenylprop-2-en-1-yl)amino]methyl}cyclohexyl)- N^4 , N^4 -dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

4-({[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)methyl]amino}methyl)-2-ethoxyphenol;

 N^2 -{cis-4-[({[4-(dimethylamino)-1-naphthyl]methyl}amino)methyl]-cyclohexyl}- N^4 , N^4 -dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

 N^4 , N^4 -dimethyl- N^2 -(cis-4-{[(2,4,6-trimethoxybenzyl)amino]methyl}-cyclohexyl)-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

2-bromo-4-chloro-6-({[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)methyl]amino}methyl)phenol;

N²-(cis-4-{[(2,5-diethoxybenzyl)amino]methyl}cyclohexyl)-N⁴,N⁴-dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

 $N^2\text{-}(cis-4-\{[(2,4\text{-}diethoxybenzyl)amino]methyl}\} cyclohexyl)-N^4, N^4\text{-}dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;}$

 $N^2-(cis-4-\{[(3,5-dibromo-2-methoxybenzyl)amino]methyl\}cyclohexyl)-N^4,N^4-dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;$

 N^4 , N^4 -dimethyl- N^2 -(cis-4-{[(2,4,5-triethoxybenzyl)amino]methyl}-cyclohexyl)-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

N⁴,N⁴-dimethyl-N²-(cis-4-{[(2,4,5-trimethoxybenzyl)amino]methyl}-cyclohexyl)-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

 N^2 -[cis-4-({[(7-methoxy-1,3-benzodioxol-5-yl)methyl]amino}methyl)-

cyclohexyl]-N⁴,N⁴-dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

4-({[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-

yl]amino}cyclohexyl)methyl]amino}methyl)-2-methylphenol;

N²-(cis-4-{[(4-methoxy-2,5-dimethylbenzyl)amino]methyl}cyclohexyl)-N⁴,N⁴-

dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

4-({[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-

yl]amino}cyclohexyl)methyl]amino}methyl)-2-fluoro-6-methoxyphenol;

 N^4 , N^4 -dimethyl- N^2 -[cis-4-({[(1-phenyl-5-propyl-1H-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyrazol-4-pyraz

yl)methyl]amino}methyl)cyclohexyl]-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

 N^2 -{cis-4-[({[1-(4-chlorophenyl)-5-propyl-1H-pyrazol-4-yl]methyl}-

amino)methyl]cyclohexyl}-N⁴,N⁴-dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

 $N^2-\{cis-4-[2-(4-bromo-2-trifluoromethoxy-phenyl)-ethylamino]-cyclohexyl\}-instance and the property of the p$

N⁴,N⁴-dimethyl-5,6,7,8-tetrahydro-quinazoline-2,4-diamine;

N²-{cis-4-[2-(4-bromo-2-trifluoromethoxy-phenyl)-ethylamino]-cyclohexyl}-N⁴-methyl-5,6,7,8-tetrahydro-quinazoline-2,4-diamine;

N²-{cis-4-[(4-bromo-2-trifluoromethoxy-benzyl)amino-methyl]-cyclohexyl}-N⁴-methyl-5,6,7,8-tetrahydro-quinazoline-2,4-diamine;

 N^2 -{cis-4-[(4-bromo-2-trifluoromethoxy-benzyl)amino-methyl]-cyclohexyl}- N^4 , N^4 -dimethyl-5,6,7,8-tetrahydro-quinazoline-2,4-diamine;

N⁴,N⁴-dimethyl-N²-{cis-4-[(2-trifluoromethoxy-benzyl)amino-methyl]-

 $\verb|cyclohexyl| -5, 6, 7, 8-tetra hydro-quinazoline-2, 4-diamine; and \\$

N⁴-methyl-N²-{cis-4-[(2-trifluoromethoxy-benzyl)amino-methyl]-cyclohexyl}-5,6,7,8-tetrahydro-quinazoline-2,4-diamine;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

35. The compound according to claim 34 selected from the group consisting of:

N²-(cis-4-{[(5-methoxy-1H-indol-3-yl)methyl]amino}cyclohexyl)-N⁴,N⁴-dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

ethyl 4,6-dichloro-3-{[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)amino]methyl}-1H-indole-2-carboxylate;

 $N^2-[cis-4-(\{[3-(4-fluorophenyl)-1H-pyrazol-4-yl]methyl\}amino)cyclohexyl]-\\N^4,N^4-dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;$

3-[{2-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)amino]ethyl}(phenyl)amino]propanenitrile;

N-{(1S)-1-benzyl-2-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)amino]ethyl}-4-methylbenzenesulfonamide;

 $N^2-[cis-4-(\{[1-(diphenylmethyl)azetidin-3-yl]methyl\}amino)cyclohexyl]-N^4,N^4-dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;$

 N^2 -(cis-4-{[(2,6-dimethoxybenzyl)amino]methyl}cyclohexyl)- N^4 , N^4 -dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

N²-[cis-4-({[(5-methoxy-1H-indol-3-yl)methyl]amino}methyl)cyclohexyl]-N⁴,N⁴-dimethyl-5.6.7.8-tetrahydroquinazoline-2,4-diamine;

N²-[cis-4-({[(5-bromo-1H-indol-3-yl)methyl]amino}methyl)cyclohexyl]-N⁴,N⁴-dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

 N^2 -(cis-4-{[(3-ethoxy-4-methoxybenzyl)amino]methyl}cyclohexyl)- N^4 , N^4 -dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

4-({[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)methyl]amino}methyl)-2-iodo-6-methoxyphenol;

N²-(cis-4-{[(3,3-diphenylprop-2-en-1-yl)amino]methyl}cyclohexyl)-N⁴,N⁴-dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

 N^4 , N^4 -dimethyl- N^2 -(cis-4-{[(2,4,6-trimethoxybenzyl)amino]methyl}-cyclohexyl)-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

 N^2 -(cis-4-{[(2,5-diethoxybenzyl)amino]methyl}cyclohexyl)- N^4 , N^4 -dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

 $N^2-(cis-4-\{[(2,4-diethoxybenzyl)amino]methyl\}\ cyclohexyl)-N^4,N^4-dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;$

 $N^2\text{-}(\text{cis-4-}\{[(3,5\text{-}dibromo-2\text{-}methoxybenzyl)amino}] methyl\} cyclohexyl)-N^4,N^4-dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;$

 N^4 , N^4 -dimethyl- N^2 -(cis-4-{[(2,4,5-triethoxybenzyl)amino]methyl}-cyclohexyl)-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

 N^4 , N^4 -dimethyl- N^2 -(cis-4-{[(2,4,5-trimethoxybenzyl)amino]methyl}-cyclohexyl)-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

N⁴,N⁴-dimethyl-N²-[cis-4-({[(1-phenyl-5-propyl-1H-pyrazol-4-

yl)methyl]amino}methyl)cyclohexyl]-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

 $N^2-\{cis-4-[(\{[1-(4-chlorophenyl)-5-propyl-1H-pyrazol-4-yl]methyl\}-1-(1-(4-chlorophenyl)-5-propyl-1H-pyrazol-4-yl]methyl\}-1-(1-(4-chlorophenyl)-5-propyl-1H-pyrazol-4-yl]methyl\}-1-(1-(4-chlorophenyl)-5-propyl-1H-pyrazol-4-yl]methyl]-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-chlorophenyl)-1-(4-ch$

amino)methyl]cyclohexyl}-N⁴,N⁴-dimethyl-5,6,7,8-tetrahydroquinazoline-2,4-diamine;

 N^2 -{cis-4-[2-(4-bromo-2-trifluoromethoxy-phenyl)-ethylamino]-cyclohexyl}- N^4 , N^4 -dimethyl-5,6,7,8-tetrahydro-quinazoline-2,4-diamine;

N²-{cis-4-[(4-bromo-2-trifluoromethoxy-benzyl)amino-methyl]-cyclohexyl}-N⁴-methyl-5,6,7,8-tetrahydro-quinazoline-2,4-diamine;

 N^2 -{cis-4-[(4-bromo-2-trifluoromethoxy-benzyl)amino-methyl]-cyclohexyl}- N^4 , N^4 -dimethyl-5,6,7,8-tetrahydro-quinazoline-2,4-diamine; and

 $N^4,N^4-dimethyl-N^2-\{cis-4-[(2-trifluoromethoxy-benzyl)amino-methyl]-\\ cyclohexyl\}-5,6,7,8-tetrahydro-quinazoline-2,4-diamine;$

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

- 36. The compound according to claim 29 wherein R₁ is selected from the group consisting of:
 - (i) C₁₋₅ alkyl, and
 C₁₋₅ alkyl substituted by substituent(s) independently selected from the group consisting of:
 - •oxo,
 - •C₁₋₅ alkoxy,

- •C₁₋₅ alkoxy substituted by carbocyclic aryl,
- °C₁₋₅ alkylcarbonyloxy,
- ocarbocyclic aryloxy,
- ocarbocyclic aryloxy substituted by halogen,
- ocarbocyclic aryloxy substituted by nitro,
- oheterocyclyloxy,
- •heterocyclyloxy substituted by C₁₋₅ alkyl,
- •mono-C₁₋₅ alkylaminocarbonyl,
- •di-C₁₋₅ alkylaminocarbonyl,
- •carbocyclic arylcarbonylamino,
- •C₁₋₅ alkylthio,
- •C₁₋₅ alkylthio substituted by substituent(s) independently selected from the group consisting of:
 - ••carbocyclic aryl, and
 - ••carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
 - •••halogen, and
 - •••C₁₋₅ alkoxy,
- •carbocyclic arylthio,
- ·heterocyclylthio,
- •heterocyclylthio substituted by C₁₋₅ alkyl,
- •C₃₋₆ cycloalkyl,
- •C₃₋₆ cycloalkenyl,
- ecarbocyclyl,
- °carbocyclyl substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen,
 - ••C₁₋₅ alkyl,

928

- ••C₁₋₅ alkoxy,
- ∞C₂₋₅ alkenyl, and
- $^{\circ\circ}C_{2-5}$ alkenyl substituted by substituent(s) independently selected from the group consisting of:
 - ooocarbocyclic aryl, and
 - •••carbocyclic aryl substituted by C₁₋₅ alkylsulfinyl,
- ocarbocyclic aryl,
- *carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen,
 - ••hydroxy,
 - ••nitro,
 - ••C₁₋₅ alkyl,
 - ••C₁₋₅ alkyl substituted by substituent(s) independently selected from the group consisting of:
 - •••oxo,
 - •••carbocyclic aryl, and
 - •••heterocyclyl,
 - ••C₁₋₅ alkoxy,
 - ••C₁₋₅ alkoxy substituted by halogen,
 - ••C₁₋₅ alkoxy substituted by carbocyclic aryl,
 - ··carbocyclic aryloxy,
 - ••mono-carbocyclic arylaminocarbonyl,
 - ••mono-carbocyclic arylaminocarbonyl substituted by halogen,
 - oodi-carbocyclic arylaminocarbonyl,
 - oodi-carbocyclic arylaminocarbonyl substituted by halogen,
 - ••carbocyclic aryl, and
 - ··heterocyclyl,

929

•heterocyclyl, and

•heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

∘∘C₁₋₅ alkyl,

∞C₁₋₅ alkoxy,

∘∘C₁₋₅ alkoxy substituted by carbocyclic aryl,

ocarbocyclic aryl, and

oocarbocyclic aryl substituted by halogen,

(ii) C₂₋₅ alkenyl, and

C₂₋₅ alkenyl substituted by substituent(s) independently selected from the group consisting of:

·carbocyclic aryl,

•carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

••halogen, and

••nitro,

(iii) C₃₋₆ cycloalkyl, and

 C_{3-6} cycloalkyl substituted by substituent(s) independently selected from the group consisting of:

•C₁₋₅ alkyl,

 ${}^{\bullet}C_{1-5}$ alkyl substituted by substituent(s) independently selected from the group consisting of:

••oxo, and

» carbocyclic aryl,

ocarbocyclic aryl,

- (iv) carbocyclyl,
- (v) carbocyclic aryl, and

carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

- °halogen,
- ohydroxy,
- °cyano,
- onitro,
- •C₁₋₅ alkyl,

 ${}^{\circ}C_{1-5}$ alkyl substituted by substituent(s) independently selected from the group consisting of:

- ••halogen,
- ••oxo,
- ••carbocyclic aryloxy,
- ••carbocyclic aryl, and
- ••carbocyclic aryl substituted by C₁₋₅ alkyl,
- •C₁₋₅ alkoxy,
- •C₁₋₅ alkoxy substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen, and
 - ··carbocyclic aryl,
- ·carbocyclic aryloxy,
- •carbocyclic aryloxy substituted by C₁₋₅ alkoxy,
- •mono-C₁₋₅ alkylaminocarbonyl,
- •di-C₁₋₅ alkylaminocarbonyl,
- •mono-C₁₋₅ alkylaminocarbonyl substituted by carbocyclic aryl,
- odi-C₁₋₅ alkylaminocarbonyl substituted by carbocyclic aryl,
- eamino,
- •mono-C₁₋₅ alkylamino,
- •di-C₁₋₅ alkylamino,

- •C₂₋₅ alkynylcarbonylamino,
- °C₂₋₅ alkynylcarbonylamino substituted by carbocyclic aryl,
- o(carbocyclic aryl)NHC(O)NH,
- °(carbocyclic aryl)NHC(O)NH substituted by C₁₋₅ alkoxy,
- °(carbocyclic aryl)NHC(O)NH substituted by haloganated C₁₋₅ alkoxy,
- ∘C₁₋₅ alkylthio,
- ∘C₁₋₅ alkylthio substituted by halogen,
- ocarbocyclic arylthio,
- •carbocyclic arylthio substituted by cyano,
- •mono-C₁₋₅ alkylaminosulfonyl,
- •di-C₁₋₅ alkylaminosulfonyl,
- •carbocyclic aryl,
- ·heterocyclyl,
- •heterocyclyl substituted by substituent(s) independently selected from the group consisting of:
 - ••C₁₋₅ alkyl,
 - ••carbocyclic aryl, and
 - ··halogenated carbocyclic aryl,
- (vi) heterocyclyl, and

heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

- ·halogen,
- •nitro,
- °C₁₋₅ alkyl,
- °C₁₋₅ alkyl substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen,
 - ••C₁₋₅ alkylthio,

932

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••C<sub>1-5</sub> alkylthio substituted by carbocyclic aryl,
                 °°C<sub>1-5</sub> alkylthio substituted by halogenated carbocyclic aryl,
                 ocarbocyclic aryl,
                 oocarbocyclic aryl substituted by halogen, and
                 ooheterocyclyl,
        ∘C<sub>1-5</sub> alkoxy,
        ·carbocyclic aryloxy,
        •carbocyclic aryloxy substituted by C<sub>1-5</sub> alkyl,
        •C<sub>1-5</sub> alkylthio,
        •C<sub>2-5</sub> alkenylthio,
        ·carbocyclic arylthio,
        •C<sub>1-5</sub> alkylsulfonyl,
        •carbocyclic arylsulfonyl,
        •carbocyclic arylsulfonyl substituted by C<sub>1-5</sub> alkyl,
        ·carbocyclic aryl,
        •carbocyclic aryl substituted by substituent(s) independently selected from
        the group consisting of:
                  ••halogen,
                  ••nitro, and
                  ••C<sub>1-5</sub> alkyl,
        ·heterocyclyl;
        L is Formula (VII);
        Y is -C(O)-;
        wherein carbocyclic aryl is phenyl, naphthyl, or anthranyl;
        carbocyclyl is 1,2,3,4-tetrahydronaphthyl, 1-oxo-indanyl, 9-oxo-9H-
fluorenyl, or indenyl;
         heterocyclyl is 1,2,3-triazolyl, 1H-indolyl, 1H-pyrrolyl, 2,3-dihydro-1-
oxo-isoindolyl, 2,4-dihydro-3-oxo-pyrazolyl, 2H-benzopyranyl, 2-oxo-
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benzopyranyl, 4-oxo-1,5,6,7-tetrahydro-indolyl, 9*H*-xanthenyl, benzo[1,3]dioxolyl, benzo[2,1,3]oxadiazolyl, benzo[1,2,5]oxadiazolyl, benzo[b]thienyl, benzofuryl, benzothiazolyl, furyl, isoxazolyl, morpholino, pyrazolyl, pyridyl, pyrimidyl, quinolyl, quinoxalyl, thiazolyl, or thienyl; and

halogen is fluoro, chloro, bromo, or iodo; or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

- 37. The compound according to claim 36 wherein R₂ is methylamino or dimethylamino; p is 0; R₃ and R₄ are hydrogen; A is a single bond; B is a single bond or -CH₂-; or a pharmaceutically acceptable salt, hydrate, or solvate thereof.
- 38. The compound according to claim 37 wherein R_1 is selected from the group consisting of:
 - (i) C_{1-5} alkyl, and

 C_{1-5} alkyl substituted by substituent(s) independently selected from the group consisting of:

- •oxo,
- •C₁₋₅ alkoxy,
- •C₁₋₅ alkoxy substituted by carbocyclic aryl,
- •C₁₋₅ alkylcarbonyloxy,
- ·carbocyclic aryloxy,
- •carbocyclic aryloxy substituted by halogen,
- •mono-C₁₋₅ alkylaminocarbonyl,
- •di-C₁₋₅ alkylaminocarbonyl,
- ·carbocyclic arylcarbonylamino,
- °C₁₋₅ alkylthio,
- °C₁₋₅ alkylthio substituted by substituent(s) independently selected from the group consisting of:
 - ··carbocyclic aryl, and

934

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••carbocyclic aryl substituted by halogen,
oheterocyclylthio,
•heterocyclylthio substituted by C<sub>1-5</sub> alkyl,
°C<sub>3-6</sub> cycloalkyl,
°carbocyclyl,
°carbocyclyl substituted by substituent(s) independently selected from the
group consisting of:
          ••halogen,
          ••C<sub>1-5</sub> alkyl,
          ••C<sub>2-5</sub> alkenyl, and
          ••C<sub>2-5</sub> alkenyl substituted by substituent(s) independently selected
         from the group consisting of:
                   •••carbocyclic aryl, and
                   •••carbocyclic aryl substituted by C<sub>1-5</sub> alkylsulfinyl,
•carbocyclic aryl,
•carbocyclic aryl substituted by substituent(s) independently selected from
the group consisting of:
         ••halogen,
         ••hydroxy,
         ••nitro,
         ••C<sub>1-5</sub> alkyl,
         {\ensuremath{\bullet \bullet}} C_{1\ensuremath{\bullet} 5} alkyl substituted by substituent(s) independently selected
         from the group consisting of:
                   •••oxo, and
                   •••heterocyclyl,
         ∘∘C<sub>1-5</sub> alkoxy,
         ••carbocyclic aryloxy,
         ••carbocyclic aryl, and
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••heterocyclyl,

oheterocyclyl, and

•heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

∞C₁₋₅ alkyl,

∘∘C₁₋₅ alkoxy, and

eecarbocyclic aryl,

(ii) C₂₋₅ alkenyl, and

C₂₋₅ alkenyl substituted by substituent(s) independently selected from the group consisting of:

- •carbocyclic aryl, and
- •carbocyclic aryl substituted by nitro,
- (iii) C_{3-6} cycloalkyl, and C_{3-6} cycloalkyl substituted by carbocyclic aryl,
- (iv) carbocyclyl,
- (v) carbocyclic aryl, andcarbocyclic aryl substituted by substituent(s) independently selected fromthe group consisting of:
 - ·halogen,
 - •hydroxy,
 - •cyano,
 - •nitro,
 - •C₁₋₅ alkyl,
 - •C₁₋₅ alkyl substituted by substituent(s) independently selected from the group consisting of:
 - ∘∘halogen,
 - ••oxo, and
 - ··carbocyclic aryl,

- •C₁₋₅ alkoxy,
- ${}^{\circ}C_{1-5}$ alkoxy substituted by substituent(s) independently selected from the group consisting of:

oohalogen, and

oocarbocyclic aryl,

- ocarbocyclic aryloxy,
- •carbocyclic aryloxy substituted by C₁₋₅ alkoxy,
- •mono-C₁₋₅ alkylaminocarbonyl,
- •di-C₁₋₅ alkylaminocarbonyl,
- •mono-C₁₋₅ alkylaminocarbonyl substituted by carbocyclic aryl,
- •di-C₁₋₅ alkylaminocarbonyl substituted by carbocyclic aryl,
- •mono-C₁₋₅ alkylamino,
- •di-C₁₋₅ alkylamino,
- •C₂₋₅ alkynylcarbonylamino,
- •C₂₋₅ alkynylcarbonylamino substituted by carbocyclic aryl,
- •(carbocyclic aryl)NHC(O)NH,
- •(carbocyclic aryl)NHC(O)NH substituted by C_{1-5} alkoxy, and
- •(carbocyclic aryl)NHC(O)NH substituted by haloganated C₁₋₅ alkoxy,
- (vi) heterocyclyl, and

heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

- ·halogen,
- •nitro,
- •C₁₋₅ alkyl,
- °C₁₋₅ alkyl substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen,
 - ••C₁₋₅ alkylthio,

937

- ••C₁₋₅ alkylthio substituted by carbocyclic aryl,
- °C₁₋₅ alkylthio substituted by halogenated carbocyclic aryl,
- ocarbocyclic aryl, and
- ooheterocyclyl,
- ocarbocyclic aryloxy,
- °carbocyclic aryloxy substituted by C₁₋₅ alkyl,
- ∘C₁₋₅ alkylthio,
- ocarbocyclic aryl,
- •carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen,
 - ••nitro, and
 - $\bullet \cdot C_{1-5}$ alkyl,
- ·heterocyclyl;

wherein carbocyclic aryl is phenyl;

carbocyclyl is 1-oxo-indanyl or indenyl;

heterocyclyl is 1,2,3-triazolyl, 1*H*-indolyl, 1*H*-pyrrolyl, 2,3-dihydro-1-oxo-isoindolyl, 2-oxo-benzopyranyl, benzo[2,1,3]oxadiazolyl, benzo[1,2,5]oxadiazolyl, furyl, isoxazolyl, morpholino, pyrazolyl, pyridyl, pyrimidyl, quinolyl, quinoxalyl, thiazolyl, or thienyl;

halogen is fluoro, chloro, bromo, or iodo;
or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

- 39. The compound according to claim 38 wherein R₁ is selected from the group consisting of:
 - (i) C₁₋₅ alkyl, and
 C₁₋₅ alkyl substituted by substituent(s) independently selected from the group consisting of:

•oxo,

- •C₁₋₅ alkylcarbonyloxy,
- ecarbocyclic aryloxy,
- ocarbocyclic aryloxy substituted by halogen,
- omono-C₁₋₅ alkylaminocarbonyl,
- •di-C₁₋₅ alkylaminocarbonyl,
- °carbocyclic arylcarbonylamino,
- ecarbocyclyl,
- *carbocyclyl substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen,
 - ••C₁₋₅ alkyl,
 - ••C₂₋₅ alkenyl, and
 - ••C₂₋₅ alkenyl substituted by substituent(s) independently selected from the group consisting of:
 - •••carbocyclic aryl, and
 - •••carbocyclic aryl substituted by C₁₋₅ alkylsulfinyl,
- ·carbocyclic aryl,
- •carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen,
 - ••hydroxy,
 - ••nitro,
 - ••C₁₋₅ alkyl, and
 - ••C₁₋₅ alkoxy,
- oheterocyclyl, and
- •heterocyclyl substituted by substituent(s) independently selected from the group consisting of:
 - ••C₁₋₅ alkyl,

939

••C₁₋₅ alkoxy, and

» carbocyclic aryl,

(ii) carbocyclic aryl, and

carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

- •halogen,
- •hydroxy,
- °cyano,
- •nitro,
- •C₁₋₅ alkyl,
- ${}^{\bullet}C_{1-5}$ alkyl substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen, and
 - ••oxo,
- •C₁₋₅ alkoxy,
- •C₁₋₅ alkoxy substituted by carbocyclic aryl,
- •carbocyclic aryloxy,
- •carbocyclic aryloxy substituted by C₁₋₅ alkoxy,
- •mono-C₁₋₅ alkylaminocarbonyl,
- •di-C₁₋₅ alkylaminocarbonyl,
- •mono-C₁₋₅ alkylaminocarbonyl substituted by carbocyclic aryl,
- •di-C₁₋₅ alkylaminocarbonyl substituted by carbocyclic aryl,
- •C₂₋₅ alkynylcarbonylamino,
- •C₂₋₅ alkynylcarbonylamino substituted by carbocyclic aryl,
- o(carbocyclic aryl)NHC(O)NH,
- °(carbocyclic aryl)NHC(O)NH substituted by C₁₋₅ alkoxy, and
- •(carbocyclic aryl)NHC(O)NH substituted by haloganated C₁₋₅ alkoxy,
- (iii) heterocyclyl, and

940

heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

- ohalogen,
- onitro,
- ∘C₁₋₅ alkyl,
- °C₁₋₅ alkyl substituted by halogen,
- •C₁₋₅ alkyl substituted by heterocyclyl,
- ecarbocyclic aryloxy,
- •carbocyclic aryloxy substituted by C₁₋₅ alkyl,
- •C₁₋₅ alkylthio,
- •carbocyclic aryl,
- •carbocyclic aryl substituted by halogen, and
- •carbocyclic aryl substituted by nitro;

wherein carbocyclic aryl is phenyl;

carbocyclyl is indenyl;

heterocyclyl is 1H-indolyl, 1H-pyrrolyl, 2-oxo-benzopyranyl,

benzo[2,1,3]oxadiazolyl, benzo[1,2,5]oxadiazolyl, furyl, isoxazolyl, morpholino, pyridyl, quinoxalyl, or thienyl; and

halogen is fluoro, chloro, bromo, or iodo;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

40. The compound according to claim 1 selected from the group consisting of:

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-3-methoxybenzamide;

3-bromo-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)benzamide;

4-bromo-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)benzamide;

- N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2,1,3-benzoxadiazole-5-carboxamide;
- 3-chloro-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)benzamide;
- 4-chloro-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)benzamide;
- 4-chloro-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-3-nitrobenzamide;
- 2-(4-chlorophenyl)-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)acetamide;
- 3-cyano-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)benzamide;
- 3,5-dichloro-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)benzamide;
- 3,4-dichloro-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)benzamide;
- N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2,2-diphenylacetamide;
- N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-3,4-difluorobenzamide;
- N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-3,5-difluorobenzamide;
- N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-4-fluorobenzamide;
- N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-3-fluoro-5-(trifluoromethyl)benzamide;
- N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)hexanamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-4-methyl-3-nitrobenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-3-nitrobenzamide;

(2R)-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-2-phenylcyclopropanecarboxamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-phenoxybutanamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-phenoxypropanamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-3-methylbenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-4-methylbenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-3-(trifluoromethoxy)benzamide;

4-bromo-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-3-methylbenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-3-iodobenzamide;

2-chloro-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-4-fluorobenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-(3-methoxyphenyl)acetamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-(4-fluorophenyl)acetamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-(4-methoxyphenyl)acetamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-5-methyl-2-(trifluoromethyl)-3-furamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2,5-dimethyl-3-furamide;

3-chloro-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-4-fluorobenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-3-fluoro-4-methylbenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-3,5-dimethoxybenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-3,5-bis(trifluoromethyl)benzamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-4-fluoro-3-methylbenzamide;

2,5-dichloro-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)thiophene-3-carboxamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-(propylthio)nicotinamide;

1-benzyl-3-tert-butyl-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-1H-pyrazole-5-carboxamide;

5-bromo-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)nicotinamide;

2-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)amino]-2-oxo-1-phenylethyl acetate;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)benzamide;

2-(benzyloxy)-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)acetamide;

944

2-(4-chlorophenoxy)-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)acetamide;

3-(2-chlorophenyl)-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2yl]amino}cyclohexyl)-5-methylisoxazole-4-carboxamide;

1-(4-chlorophenyl)-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2yl]amino}cyclohexyl)cyclopentanecarboxamide;

3-(2-chloro-6-fluorophenyl)-N-(cis-4-{[4-(dimethylamino)-5,6,7,8tetrahydroquinazolin-2-yl]amino}cyclohexyl)-5-methylisoxazole-4-carboxamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-1,3-dimethyl-1H-pyrazole-5-carboxamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-3-fluorobenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-4-fluoro-3-(trifluoromethyl)benzamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-5-methyl-2-phenyl-2H-1,2,3-triazole-4-carboxamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yllamino}cyclohexyl)-2-(4-methoxyphenoxy)-5-nitrobenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-5-nitro-2-furamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-2-phenoxyacetamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)quinoxaline-2-carboxamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-3-(trifluoromethyl)benzamide;

2-(3-chlorophenoxy)-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)acetamide;

3-(2,6-dichlorophenyl)-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-5-methylisoxazole-4-carboxamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-phenoxynicotinamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-(4-methylphenoxy)nicotinamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-(2-thienyl)-1,3-thiazole-4-carboxamide;

5-bromo-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)thiophene-2-carboxamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-(2,3,6-trichlorophenyl)acetamide;

2-(2-chloro-4-fluorophenyl)-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)acetamide;

5-(4-chloro-2-nitrophenyl)-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-2-furamide;

5-chloro-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)thiophene-2-carboxamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2,3-diphenylpropanamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-3-(2-hydroxyphenyl)propanamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-5-iodo-2-furamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-(2-iodophenyl)acetamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-(5-methoxy-2-methyl-1H-indol-3-yl)acetamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-3-oxoindane-1-carboxamide;

2-benzyl-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)benzamide;

2,2-bis(4-chlorophenyl)-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)acetamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-5-(4-methyl-2-nitrophenyl)-2-furamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-5-nitrothiophene-2-carboxamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-3-methyl-4-nitrobenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-3-methoxy-4-nitrobenzamide;

3-acetyl-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)benzamide;

5-bromo-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-2-furamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-[(4-methylpyrimidin-2-yl)thio]acetamide;

5-(4-chlorophenyl)-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-2-furamide;

2-(3,4-dichlorophenyl)-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)acetamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-(4-hydroxy-3,5-dimethoxyphenyl)acetamide;

4,5-dibromo-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)thiophene-2-carboxamide;

N²,N⁶-dibenzoyl-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)lysinamide;

3-(dimethylamino)-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)benzamide;

4,5-dibromo-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-2-furamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-4-(4-fluorophenyl)-4-oxobutanamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-(2-fluorobiphenyl-4-yl)propanamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-[4-(1-oxo-1,3-dihydro-2H-isoindol-2-yl)phenyl]propanamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-(1H-indol-3-yl)acetamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-(7-methoxy-2-oxo-2H-chromen-4-yl)acetamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-(1H-indol-3-yl)-4-oxo-4-phenylbutanamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-3,5-dimethyl-2-[({[4-(trifluoromethoxy)phenyl]amino}carbonyl)amino]-benzamide;

3,5-dichloro-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-2-[(3-phenylprop-2-ynoyl)amino]benzamide;

4-(4-tert-butylphenyl)-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-2-(7-ethyl-1H-indol-3-yl)-4-oxobutanamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-(1-methyl-1H-indol-3-yl)-4-(4-methylphenyl)-4-oxobutanamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-2-methyl-1-(3-morpholin-4-ylpropyl)-5-phenyl-1H-pyrrole-3-carboxamide;
N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-

cyclohexyl)-4-(4-nitrophenyl)butanamide;

 $N-(cis-4-\{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino\}-cyclohexyl)-2-(3-phenoxyphenyl)acetamide;$

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-(4-phenoxyphenyl)acetamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-(2-phenyl-1H-indol-3-yl)acetamide;

N²-benzoyl-N⁵-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-N¹,N¹-dipropylglutamamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-3-phenoxybenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-(ethylthio)-2,2-diphenylacetamide;

N'-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-N,N-bis[(1S)-1-phenylethyl]phthalamide;

(2S)-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-2-(2-fluorobiphenyl-4-yl)propanamide;

2-[(4-chlorobenzyl)thio]-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-4-(4-methylphenyl)-4-oxobutanamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-{(1E)-5-fluoro-2-methyl-1-[4-(methylsulfinyl)benzylidene]-1H-inden-3-yl}acetamide;

 $N-(cis-4-\{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino\}-\\ cyclohexyl)-2-[4-(2-thienylcarbonyl)phenyl]propanamide;$

3-(benzyloxy)-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-4-methoxybenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-methyl-1,5-diphenyl-1H-pyrrole-3-carboxamide;

1-{2-[(2-chloro-6-fluorobenzyl)thio]ethyl}-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-2-methyl-5-phenyl-1H-pyrrole-3-carboxamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-phenoxybenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-phenylquinoline-4-carboxamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-5-(3-nitrophenyl)-2-furamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-5-nitrothiophene-3-carboxamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-1-methyl-4-nitro-1H-pyrrole-2-carboxamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-methoxy-4-nitrobenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-methoxy-2-phenylacetamide;

5-chloro-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-2-hydroxybenzamide;

3-bromo-N-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)methyl]benzamide;

N-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)methyl]-2-(ethylthio)nicotinamide;

N-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)methyl]-2-(4-methoxyphenyl)acetamide;

 $N-[(cis-4-\{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino\}-cyclohexyl) methyl]-5-methyl-2-(trifluoromethyl)-3-furamide;$

(2E)-N-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)methyl]-3-(4-nitrophenyl)acrylamide;

N-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)methyl]-4-fluoro-3-methylbenzamide;

N-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)methyl]-2-(propylthio)nicotinamide;

2,6-dichloro-N-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)methyl]benzamide;

N-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)methyl]-2,4,6-trimethylbenzamide;

2-chloro-N-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)methyl]-6-fluorobenzamide;

2,4,6-trichloro-N-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)methyl]benzamide;

N-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)methyl]-2-(2,3,6-trichlorophenyl)acetamide;

(2E)-N-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)methyl]-3-(3-nitrophenyl)acrylamide; and

N-[cis-4-(4-dimethylamino-5,6,7,8-tetrahydro-quinazolin-2-ylamino)-cyclohexylmethyl]-3,4-difluoro-benzamide;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

41. The compound according to claim 40 selected from the group consisting of:

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-3-methoxybenzamide;

3-bromo-N-(cis-4-{[4-(dimethylamino)-5.6.7.8-tetrahydroquinazolin-2yl]amino}cyclohexyl)benzamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-2,1,3-benzoxadiazole-5-carboxamide;

3-chloro-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2yl]amino}cyclohexyl)benzamide;

4-chloro-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2yl]amino}cyclohexyl)benzamide;

4-chloro-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2yl]amino}cyclohexyl)-3-nitrobenzamide;

2-(4-chlorophenyl)-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroguinazolin-2yl]amino}cyclohexyl)acetamide;

3-cyano-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2yl]amino}cyclohexyl)benzamide;

3,5-dichloro-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroguinazolin-2yllamino cyclohexyl) benzamide;

3,4-dichloro-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2yl]amino}cyclohexyl)benzamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-2,2-diphenylacetamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-3,4-difluorobenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-3,5-difluorobenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-4-fluorobenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-3-fluoro-5-(trifluoromethyl)benzamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-4-methyl-3-nitrobenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-3-nitrobenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-phenoxybutanamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-phenoxypropanamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-3-methylbenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-3-iodobenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-(4-fluorophenyl)acetamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2,5-dimethyl-3-furamide;

3-chloro-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-4-fluorobenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-3,5-dimethoxybenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-3,5-bis(trifluoromethyl)benzamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-4-fluoro-3-methylbenzamide;

2,5-dichloro-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)thiophene-3-carboxamide;

5-bromo-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)nicotinamide;

2-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)amino]-2-oxo-1-phenylethyl acetate;

3-(2-chloro-6-fluorophenyl)-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-5-methylisoxazole-4-carboxamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-3-fluorobenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-4-fluoro-3-(trifluoromethyl)benzamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-(4-methoxyphenoxy)-5-nitrobenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-5-nitro-2-furamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-phenoxyacetamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)quinoxaline-2-carboxamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-3-(trifluoromethyl)benzamide;

2-(3-chlorophenoxy)-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)acetamide;

3-(2,6-dichlorophenyl)-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-5-methylisoxazole-4-carboxamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-(4-methylphenoxy)nicotinamide;

2-(2-chloro-4-fluorophenyl)-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)acetamide;

5-(4-chloro-2-nitrophenyl)-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-2-furamide;

5-chloro-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)thiophene-2-carboxamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-5-iodo-2-furamide;

2,2-bis(4-chlorophenyl)-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)acetamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-5-nitrothiophene-2-carboxamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-3-methyl-4-nitrobenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-3-methoxy-4-nitrobenzamide;

3-acetyl-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)benzamide;

5-bromo-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-2-furamide;

5-(4-chlorophenyl)-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-2-furamide;

2-(3,4-dichlorophenyl)-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)acetamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-(4-hydroxy-3,5-dimethoxyphenyl)acetamide;

4,5-dibromo-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-2-furamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-(1H-indol-3-yl)acetamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-(7-methoxy-2-oxo-2H-chromen-4-yl)acetamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-3,5-dimethyl-2-[({[4-(trifluoromethoxy)phenyl]amino}carbonyl)amino]-benzamide;

3,5-dichloro-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-2-[(3-phenylprop-2-ynoyl)amino]benzamide;

4-(4-tert-butylphenyl)-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yllamino}cyclohexyl)-2-(7-ethyl-1H-indol-3-yl)-4-oxobutanamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-methyl-1-(3-morpholin-4-ylpropyl)-5-phenyl-1H-pyrrole-3-carboxamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-4-(4-nitrophenyl)butanamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-(2-phenyl-1H-indol-3-yl)acetamide;

N²-benzoyl-N⁵-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-N¹,N¹-dipropylglutamamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-3-phenoxybenzamide;

N'-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-N,N-bis[(1S)-1-phenylethyl]phthalamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-{(1E)-5-fluoro-2-methyl-1-[4-(methylsulfinyl)benzylidene]-1H-inden-3-yl}acetamide;

3-(benzyloxy)-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-4-methoxybenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-2-phenoxybenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-5-nitrothiophene-3-carboxamide;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-1-methyl-4-nitro-1H-pyrrole-2-carboxamide;

5-chloro-N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-2-hydroxybenzamide;

N-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)methyl]-2-(ethylthio)nicotinamide;

N-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cvclohexyl)methyl]-2-(4-methoxyphenyl)acetamide;

N-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)methyl]-5-methyl-2-(trifluoromethyl)-3-furamide;

N-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)methyl]-2-(propylthio)nicotinamide; and

2,4,6-trichloro-N-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)methyl]benzamide;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

- 42. The compound according to claim 29 wherein R₁ is selected from the group consisting of:
 - (i) C₁₋₅ alkyl, and
 C₁₋₅ alkyl substituted by substituent(s) independently selected from the group consisting of:
 - •oxo,
 - ∘C₁₋₅ alkoxy carbonyl,
 - ocarbocyclic aryl,
 - •carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
 - ··halogen,

••C₁₋₅ alkyl,

∞C₂₋₅ alkenyl, and

∘∘C₁₋₅ alkoxy,

°C₁₋₅ alkylthio, and

•heterocyclyl,

(ii) C₃₋₆ cycloalkyl, and

C₃₋₆ cycloalkyl substituted by carbocyclic aryl,

- (iii) carbocyclyl,
- (iv) carbocyclic aryl, andcarbocyclic aryl substituted by substituent(s) independently selected fromthe group consisting of:

•halogen,

•cyano,

•nitro,

•C₁₋₅ alkyl,

 ${}^{\bullet}C_{1-5}$ alkyl substituted by substituent(s) independently selected from the group consisting of:

- ••halogen,
- ••oxo, and
- ··carbocyclic aryl,
- •C₁₋₅ alkoxy carbonyl,
- $\cdot C_{1-7}$ alkoxy,
- •C₁₋₇ alkoxy substituted by substituent(s) independently selected from the group consisting of:

∘∘halogen, and

ocarbocyclic aryl,

•C₃₋₆ cycloalkoxy,

·carbocyclic aryloxy,

WO 2004/087669 PCT/JP2004/004624

958

- •mono-C₁₋₅ alkylamino,
- ∘di-C₁₋₅ alkylamino,
- °C₁₋₅ alkylthio,
- °C₁₋₅ alkylthio substituted by halogen, and
- ocarbocyclic aryl,
- (v) heterocyclyl, and

heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

- ·halogen,
- •C₁₋₅ alkyl,
- •C₁₋₅ alkyl substituted by halogen,
- •C₁₋₅ alkoxy carbonyl
- •C₁₋₅ alkoxy carbonyl substituted by carbocyclic aryl, and
- •carbocyclic aryl;

L is Formula (VII);

Y is $-C(O)NR_{5}$ -;

wherein carbocyclic aryl is phenyl or naphthyl;

carbocyclyl is indanyl, adamantly, or 9H-fluorenyl;

heterocyclyl is 2,3-dihydro-benzo[1,4]dioxinyl, 3,4-dihydro-2H-

benzo[b][1,4]dioxepinyl, 4H-benzo[1,3]dioxinyl, benzo[1,3]dioxolyl, furyl,

isoxazolyl, piperidyl, pyridyl, or thienyl;

halogen is fluoro, chloro, bromo, or iodo;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

43. The compound according to claim 42 wherein R₂ is methylamino or dimethylamino; p is 0; R₃ and R₄ are hydrogen; A is a single bond; B is a single bond or -CH₂-: R₅ is hydrogen; or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

WO 2004/087669 PCT/JP2004/004624

959

- 44. The compound according to claim 43 wherein R₁ is selected from the group consisting of:
 - (i) C₁₋₅ alkyl, and

C₁₋₅ alkyl substituted by substituent(s) independently selected from the group consisting of:

•C₁₋₅ alkoxy carbonyl,

ocarbocyclic aryl, and

ocarbocyclic aryl substituted by halogen,

- (ii) carbocyclic aryl, andcarbocyclic aryl substituted by substituent(s) independently selected fromthe group consisting of:
 - ·halogen,
 - •nitro,
 - •C₁₋₅ alkyl,
 - •C₁₋₅ alkyl substituted by halogen,
 - •C₁₋₅ alkoxy, and
 - •C₁₋₅ alkoxy substituted by halogen,
- (iii) heterocyclyl, and

heterocyclyl substituted by C₁₋₅ alkyl, and

heterocyclyl substituted by carbocyclic aryl;

wherein carbocyclic aryl is phenyl or naphthyl;

heterocyclyl is isoxazolyl;

halogen is fluoro, chloro, bromo, or iodo;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

45. The compound according to claim 1 selected from the group consisting of:

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-N'-(2-ethyl-6-methylphenyl)urea;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-N'-(4-fluorophenyl)urea;

 $N-(cis-4-\{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino\}-\\ cyclohexyl)-N'-mesitylurea;$

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-N'-(2,4,6-trichlorophenyl)urea;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-N'-(2,4,6-tribromophenyl)urea;

N-(2,4-dibromo-6-fluorophenyl)-N'-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)urea;

N-(2,6-diethylphenyl)-N'-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)urea;

N-(2-chlorobenzyl)-N'-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)urea;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-N'-(2-ethyl-6-isopropylphenyl)urea;

 $N-(cis-4-\{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino\}-cyclohexyl)-N'-(2-ethylphenyl)urea;$

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-N'-(2-isopropyl-6-methylphenyl)urea;

N-(2-tert-butyl-6-methylphenyl)-N'-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)urea;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-N'-(diphenylmethyl)urea;

N-(4-bromo-2,6-dimethylphenyl)-N'-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)urea;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-N'-(3-methyl-5-phenylisoxazol-4-yl)urea;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-N'-1-naphthylurea;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-N'-[1-(1-naphthyl)ethyl]urea;

N-(2,4-dibromophenyl)-N'-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)urea;

N-(2,4-dichlorobenzyl)-N'-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)urea;

N-(2,4-dimethoxyphenyl)-N'-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)urea;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-N'-(2-ethoxyphenyl)urea;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-N'-(2-fluorobenzyl)urea;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-N'-(3,4,5-trimethoxyphenyl)urea;

N-(3,4-dimethoxyphenyl)-N'-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)urea;

N-(4-chloro-2-methylphenyl)-N'-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)urea;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-N'-(4-fluorobenzyl)urea;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cvclohexyl)-N'-(4-methoxy-2-methylphenyl)urea;

N-(5-chloro-2,4-dimethoxyphenyl)-N'-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)urea;

N-[1-(4-bromophenyl)ethyl]-N'-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)urea;

N-(4-bromo-2-methylphenyl)-N'-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)urea;

N-(cis-4-{[4-(dimethylamino)-5,6,7,3-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-N'-(5-methyl-3-phenylisoxazol-4-yl)urea;

N-(2,3-dichlorophenyl)-N'-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)urea;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-N'-(4-methylphenyl)urea;

N-(2,6-diisopropylphenyl)-N'-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)urea;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-N'-(2,4,5-trichlorophenyl)urea;

N-(2,5-dimethoxyphenyl)-N'-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)urea;

N-(4-bromo-2-chlorophenyl)-N'-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)urea;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)-N'-[2-(trifluoromethoxy)phenyl]urea;

 $N-[(cis-4-\{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino\}-cyclohexyl)methyl]-N'-(2,6-dimethylphenyl)urea;$

N-(2,4-difluorophenyl)-N'-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)methyl]urea;

N-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)methyl]-N'-(2-ethyl-6-methylphenyl)urea;

ethyl N-({[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]-amino}cyclohexyl)methyl]amino}carbonyl)leucinate;

N-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)methyl]-N'-(4-fluorophenyl)urea;

N-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)methyl]-N'-mesitylurea;

N-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)methyl]-N'-(2,4,6-trichlorophenyl)urea;

N-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)methyl]-N'-(2,4,6-tribromophenyl)urea;

N-(2,6-diethylphenyl)-N'-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)methyl]urea;

N-[2-chloro-6-(trifluoromethyl)phenyl]-N'-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)methyl]urea;

N-(2-chloro-6-methylphenyl)-N'-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)methyl]urea;

N-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)methyl]-N'-(2-ethyl-6-isopropylphenyl)urea;

N-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)methyl]-N'-(2-isopropyl-6-methylphenyl)urea;

N-(2-tert-butyl-6-methylphenyl)-N'-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)methyl]urea;

N-(2-tert-butylphenyl)-N'-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)methyl]urea;

N-(3-chloro-2-methylphenyl)-N'-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)methyl]urea;

N-(4-bromo-2,6-dimethylphenyl)-N'-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)methyl]urea;

N-(2,6-diisopropylphenyl)-N'-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)methyl]urea;

N-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)methyl]-N'-(2,3-dimethyl-6-nitrophenyl)urea;

WO 2004/087669

N-(2,6-dibromo-4-fluorophenyl)-N'-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)methyl]urea;

N-(2,6-dichlorophenyl)-N'-[(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)methyl]urea; and

1-(2,3-dichloro-phenyl)-3-[cis-4-(4-dimethylamino-5,6,7,8-tetrahydro-quinazolin-2-ylamino)-cyclohexylmethyl]-urea;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

- 46. The compound according to claim 29 wherein R₁ is selected from the group consisting of:
 - (i) C₁₋₈ alkyl, and
 C₁₋₈ alkyl substituted by substituent(s) independently selected from the group consisting of:
 - •mono-C₁₋₅ alkylamino,
 - •di-C₁₋₅ alkylamino,
 - •C₃₋₆ cycloalkyl,
 - •C₃₋₆ cycloalkenyl,
 - ·carbocyclic aryl,
 - •carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen,
 - ••C₁₋₅ alkyl, and
 - •• C_{1-5} alkoxy,
 - •heterocyclyl,
 - (ii) C₂₋₅ alkynyl,
 - (iii) C₂₋₅ alkenyl,
 - (iv) C₃₋₁₂ cycloalkyl,
 - (v) carbocyclyl,
 - (vi) carbocyclic aryl, and

carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

- •halogen,
- °cyano,
- onitro,
- ∘C₁₋₁₀ alkyl,
- ${}^{\circ}C_{1-10}$ alkyl substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen, and
 - ••oxo,
- ·carboxy,
- •C₁₋₅ alkoxy carbonyl,
- •C₁₋₅ alkoxy,
- ${}^{\bullet}C_{1-5}$ alkoxy substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen, and
 - ••carbocyclic aryl,
- ·carbocyclic aryloxy,
- •carbocyclic aryloxy substituted by nitro,
- •mono-C₁₋₅ alkylamino,
- •di-C₁₋₅ alkylamino,
- •C₁₋₅ alkoxy carbonylamino,
- •carbocyclic aryl azo,
- •carbocyclic aryl azo substituted by substituent(s) independently selected from the group consisting of:
 - ∞mono-C₁₋₅ alkylamino, and
 - ••di-C₁₋₅ alkylamino,
- •C₁₋₅ alkylthio,

- •C₁₋₅ alkylthio substituted by halogen,
- °carbocyclic arylthio,
- ocarbocyclic arylthio substituted by nitro,
- oamino sulfonyl,
- •heterocyclyl sulfonyl,
- °C₃₋₆ cycloalkyl,
- °C₃₋₆ cycloalkyl substituted by C₁₋₅ alkyl,
- ocarbocyclic aryl, and
- •heterocyclyl,
- (vii) heterocyclyl, and

heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

- $\cdot C_{1-5}$ alkyl,
- •C₁₋₅ alkoxy carbonyl,
- ·carbocyclic aryloxy,
- ·carbocyclic aryl, and
- •heterocyclyl;

L is Formula (VII);

Y is $-C(S)NR_5$ -;

wherein carbocyclic aryl is phenyl or naphthyl;

carbocyclyl is indanyl, bicyclo[2.2.1]heptyl, bicyclo[2.2.1]heptenyl, or adamantly;

heterocyclyl is 2,3-dihydro-benzo[1,4]dioxinyl, 4,5,6,7-tetrahydro-benzo[b]thienyl, benzo[1,3]dioxolyl, benzo[2,1,3]thiadiazolyl, furyl, isoxazolyl, morpholinyl, oxazolyl, phenanthro[9,10-d]oxazolyl, piperidyl, pyrazolyl, pyridyl, tetrahydrofuryl, or thienyl; and

halogen is fluoro, chloro, bromo, or iodo; or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

- 47. The compound according to claim 46 wherein R₂ is methylamino or dimethylamino; p is 0; R₃ and R₄ are hydrogen; A is a single bond; B is a single bond or -CH₂-: R₅ is hydrogen; or a pharmaceutically acceptable salt, hydrate, or solvate thereof.
- 48. The compound according to claim 47 wherein R_1 is selected from the group consisting of:
 - (i) C_{1-5} alkyl, and C_{1-5} alkyl substituted by carbocyclic aryl,
 - (ii) carbocyclic aryl, andcarbocyclic aryl substituted by substituent(s) independently selected fromthe group consisting of:
 - •halogen,
 - •C₁₋₅ alkyl,
 - •C₁₋₅ alkyl substituted by halogen,
 - •C₁₋₅ alkoxy,
 - •C₁₋₅ alkoxy substituted by halogen,
 - •mono-C₁₋₅ alkylamino, and
 - •di-C₁₋₅ alkylamino;

wherein carbocyclic aryl is phenyl or naphthyl; and

halogen is fluoro, chloro, bromo, or iodo;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

- 49. The compound according to claim 1 selected from the group consisting of:
 - N-(2,4-dimethoxyphenyl)-N'-(cis-4-{[4-(dimethylamino)-5,6,7,8-

tetrahydroquinazolin-2-yl]amino}cyclohexyl)thiourea;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-N'-(3,4,5-trimethoxyphenyl)thiourea;

N-(3,4-dimethoxyphenyl)-N'-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)thiourea;

N-[4-(dimethylamino)-1-naphthyl]-N'-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)thiourea;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-N'-(2-methoxy-5-methylphenyl)thiourea;

N-(4-bromo-2-chlorophenyl)-N'-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)thiourea;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-N'-(4-iodophenyl)thiourea;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-N'-(2,4,6-tribromophenyl)thiourea;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-N'-(2,4,6-trichlorophenyl)thiourea;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-N'-mesitylthiourea;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-N'-(2,4-dimethylphenyl)thiourea;

N-(2,6-diethylphenyl)-N'-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)thiourea;

 $N-(4-bromo-2,6-dimethylphenyl)-N'-(cis-4-\{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino\} cyclohexyl) thiourea;$

N-(4-bromo-2-methylphenyl)-N'-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)thiourea;

N-[4-bromo-2-(trifluoromethyl)phenyl]-N'-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)thiourea;

N-(4-chloro-2-methylphenyl)-N'-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)thiourea;

 $N-[4-chloro-2-(trifluoromethyl)phenyl]-N'-(cis-4-\{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino\} cyclohexyl) thiourea;$

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-N'-(4-fluoro-2-methylphenyl)thiourea;

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-N'-(4-methoxy-2-methylphenyl)thiourea;

N-(5-chloro-2,4-dimethoxyphenyl)-N'-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)thiourea;

N-(2,4-dibromo-6-fluorophenyl)-N'-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)thiourea;

N-(2,4-dichloro-6-methylphenyl)-N'-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)thiourea;

 $N-(cis-4-\{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino\}-cyclohexyl)-N'-(2-ethoxyphenyl)thiourea;$

N-[4-bromo-2-(trifluoromethoxy)phenyl]-N'-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)thiourea;

N-(4-chloro-2,5-dimethoxyphenyl)-N'-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}cyclohexyl)thiourea; and

N-(cis-4-{[4-(dimethylamino)-5,6,7,8-tetrahydroquinazolin-2-yl]amino}-cyclohexyl)-N'-(2,2-diphenylethyl)thiourea;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

- 50. The compound according to claim 29 wherein R₁ is selected from the group consisting of:
 - (i) C₁₋₈ alkyl, and
 C₁₋₈ alkyl substituted by substituent(s) independently selected from the group consisting of:
 - ·halogen,
 - •C₁₋₅ alkoxy,

WO 2004/087669 PCT/JP2004/004624

(ii)

(iii)

(iv)

970

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•C<sub>1-5</sub> alkoxy substituted by carbocyclic aryl,
ocarbocyclyl,
ocarbocyclic aryl,
ocarbocyclic aryl substituted by substituent(s) independently selected from
the group consisting of:
         ∘∘halogen,
         oonitro, and
         ∞C<sub>1-5</sub> alkoxy,
C<sub>2-5</sub> alkenyl,
carbocyclyl,
carbocyclic aryl, and
carbocyclic aryl substituted by substituent(s) independently selected from
the group consisting of:
·halogen,
•C<sub>1-5</sub> alkyl,
•C<sub>1-5</sub> alkyl substituted by halogen, and
•C<sub>1-5</sub> alkoxy;
L is Formula (VII);
Y \text{ is } -C(O)O-;
wherein carbocyclic aryl is phenyl or naphthyl;
carbocyclyl is 9H-fluorenyl or menthyl; and
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or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

halogen is fluoro, chloro, bromo, or iodo;

The compound according to claim 50 wherein R₂ is methylamino or dimethylamino; p is 0;
R₃ and R₄ are hydrogen; A is a single bond; B is a single bond or -CH₂-;
or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

- 52. The compound according to claim 2 wherein Q is Formula (IV); p is 0;
 - R_1 is selected from the group consisting of:
 - (i) C₁₋₈ alkyl, and
 - C₁₋₈ alkyl substituted by substituent(s) independently selected from the group consisting of:
 - ohalogen,
 - °OXO,
 - °C₁₋₅ alkoxy,
 - •C₁₋₅ alkoxy substituted by carbocyclic aryl,
 - •C₁₋₅ alkylcarbonyloxy,
 - ·carbocyclic aryloxy,
 - •carbocyclic aryloxy substituted by halogen,
 - carbocyclic aryloxy substituted by nitro,
 - •carbocyclic aryloxy substituted by C₁₋₅ alkoxy,
 - •heterocyclyloxy,
 - •heterocyclyloxy substituted by C₁₋₅ alkyl,
 - •C₁₋₅ alkoxycarbonyl,
 - •mono-C₁₋₅ alkylaminocarbonyl,
 - •di-C₁₋₅ alkylaminocarbonyl,
 - •mono-C₁₋₅ alkylamino,
 - •mono-C₁₋₅ alkylamino substituted by cyano,
 - •mono-C₁₋₅ alkylamino substituted by carbocyclic aryl,
 - •di-C₁₋₅ alkylamino,
 - •di-C₁₋₅ alkylamino substituted by cyano,
 - odi-C₁₋₅ alkylamino substituted by carbocyclic aryl,
 - ºmono-carbocyclic arylamino,
 - •mono-carbocyclic arylamino substituted by C₁₋₅ alkyl,
 - ·di-carbocyclic arylamino,

- •di-carbocyclic arylamino substituted by C₁₋₅ alkyl,
- °C₁₋₅ alkoxycarbonylamino,
- ocarbocyclic arylcarbonylamino,
- °C₁₋₅ alkylthio,
- ${}^{\circ}C_{1-5}$ alkylthio substituted by substituent(s) independently selected from the group consisting of:
 - ocarbocyclic aryl,
 - ocarbocyclic aryl substituted by halogen, and
 - ••carbocyclic aryl substituted by C₁₋₅ alkoxy,
- •carbocyclic arylthio,
- •heterocyclylthio,
- •heterocyclylthio substituted by nitro,
- •heterocyclylthio substituted by C₁₋₅ alkyl,
- •C₃₋₆ cycloalkyl,
- •C₃₋₆ cycloalkenyl,
- •carbocyclyl,
- •carbocyclyl substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen,
 - ••C₁₋₅ alkyl,
 - ••C₁₋₅ alkoxy,
 - ••C₂₋₅ alkenyl, and
 - $\bullet \bullet C_{2-5}$ alkenyl substituted by substituent(s) independently selected from the group consisting of:
 - ooocarbocyclic aryl, and
 - •••carbocyclic aryl substituted by C₁₋₅ alkylsulfinyl,
- ·carbocyclic aryl,

•carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

∘∘halogen,

oohydroxy,

oonitro,

∘∘C₁₋₅ alkyl,

 ${}^{\circ}$ C₁₋₅ alkyl substituted by substituent(s) independently selected from the group consisting of:

•••OXO,

•••carbocyclic aryl, and

•••heterocyclyl,

••C₂₋₅ alkenyl,

•• C_{1-5} alkoxy,

••C₁₋₅ alkoxy substituted by halogen,

••C₁₋₅ alkoxy substituted by carbocyclic aryl,

••carbocyclic aryloxy,

··carbocyclic aryl, and

••heterocyclýl,

•heterocyclyl, and

•heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

 $\cdot \cdot C_{1-5}$ alkyl,

••C₁₋₅ alkyl substituted by carbocyclic aryl,

∞C₁₋₅ alkoxy,

••C₁₋₅ alkoxy substituted by carbocyclic aryl,

ocarbocyclic aryl, and

••carbocyclic aryl substituted by halogen,

(ii) C₂₋₇ alkenyl, and

WO 2004/087669 PCT/JP2004/004624

974

C₂₋₇ alkenyl substituted by substituent(s) independently selected from the group consisting of:

ocarbocyclic aryl,

°carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

··halogen,

onitro, and

••C₁₋₅ alkoxy,

(iii) C₂₋₅ alkynyl, and

C₂₋₅ alkynyl substituted by carbocyclic aryl,

(iv) C₃₋₆ cycloalkyl, and

C₃₋₆ cycloalkyl substituted by substituent(s) independently selected from the group consisting of:

- •C₁₋₅ alkyl,
- •C₁₋₅ alkyl substituted by oxo,
- ${}^{\bullet}C_{1\text{--}5}$ alkyl substituted by carbocyclic aryl, and
- ·carbocyclic aryl,
- (v) carbocyclyl,
- (vi) carbocyclic aryl, andcarbocyclic aryl substituted by substituent(s) independently selected fromthe group consisting of:
 - •halogen,
 - hydroxy,
 - •cyano,
 - onitro,
 - °C1-5 alkyl,
 - •C₁₋₅ alkyl substituted by substituent(s) independently selected from the group consisting of:

- ··halogen,
- 00XO,
- ocarbocyclic aryloxy,
- ocarbocyclic aryl, and
- ••carbocyclic aryl substituted by C₁₋₅ alkyl,
- °C₁₋₅ alkoxy,
- °C₁₋₅ alkoxy substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen,
 - ••carbocyclic aryl, and
 - ••halogenated carbocyclic aryl,
- •C₂₋₅ alkenyloxy,
- •C₃₋₆ cycloalkoxy,
- ·carbocyclic aryloxy,
- •carbocyclic aryloxy substituted by C₁₋₅ alkoxy,
- •C₁₋₅ alkoxycarbonyl,
- •mono-C₁₋₅ alkylaminocarbonyl,
- •di-C₁₋₅ alkylaminocarbonyl,
- •mono-C₁₋₅ alkylaminocarbonyl substituted by carbocyclic aryl,
- •di-C₁₋₅ alkylaminocarbonyl substituted by carbocyclic aryl,
- ·amino.
- •mono-C₁₋₅ alkylamino,
- •di-C₁₋₅ alkylamino,
- omono-C₁₋₅ alkylamino substituted by cyano,
- odi-C1-5 alkylamino substituted by cyano,
- •C₂₋₅ alkynylcarbonylamino,
- •C₂₋₅ alkynylcarbonylamino substituted by carbocyclic aryl,
- •(carbocyclic aryl)NHC(O)NH,

WO 2004/087669 PCT/JP2004/004624

976

- •(carbocyclic aryl)NHC(O)NH substituted by C₁₋₅ alkoxy,
- °(carbocyclic aryl)NHC(O)NH substituted by haloganated C1-5 alkoxy,
- °C₁₋₅ alkylthio,
- °C₁₋₅ alkylthio substituted by halogen,
- ocarbocyclic arylthio,
- ocarbocyclic arylthio substituted by cyano,
- •mono-C₁₋₅ alkylaminosulfonyl,
- ∘di-C₁₋₅ alkylaminosulfonyl,
- •carbocyclic aryl,
- •heterocyclyl, and
- •heterocyclyl substituted by substituent(s) independently selected from the group consisting of:
 - ••C₁₋₅ alkyl,
 - ••carbocyclic aryl, and
 - ••halogenated carbocyclic aryl,
- (vii) heterocyclyl, and

heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

- ·halogen,
- •nitro,
- •C₁₋₅ alkyl,
- •C₁₋₅ alkyl substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen,
 - oohydroxy,
 - ∘∘C₁₋₅ alkylthio,
 - ••C₁₋₅ alkylthio substituted by carbocyclic aryl,
 - ••C₁₋₅ alkylthio substituted by halogenated carbocyclic aryl,

WO 2004/087669

- ··carbocyclic aryl,
- ocarbocyclic aryl substituted by halogen, and
- ooheterocyclyl,
- ∘C₁₋₅ alkoxy,
- «carbocyclic arylòxy,
- ocarbocyclic aryloxy substituted by C₁₋₅ alkyl,
- ∘C₁₋₅ alkylthio,
- ∘C₂₋₅ alkenylthio,
- ·carbocyclic arylthio,
- •carbocyclic arylthio substituted by C₁₋₅ alkoxycarbonyl,
- •C₁₋₅ alkylsulfonyl,
- ·carbocyclic arylsulfonyl,
- •carbocyclic arylsulfonyl substituted by C₁₋₅ alkyl,
- •C₁₋₅ alkoxycarbonyl,
- ·carbocyclic aryl,
- •carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen,
 - ••nitro,
 - ••C₁₋₅ alkyl, and
 - ••C₁₋₅ alkyl substituted by halogen,
- •heterocyclyl;

wherein carbocyclic aryl is phenyl, naphthyl, or anthranyl;

carbocyclyl is 1,2,3,4-tetrahydronaphthyl, 1-oxo-indanyl, 9-fluorenyl, 9-oxo-9*H*-fluorenyl, bicyclo[2.2.1]heptyl, indenyl, or menthyl;

heterocyclyl is 1,2,3-triazolyl, 1*H*-indolyl, 1*H*-pyrrolyl, 2,3-dihydro-1-oxo-isoindolyl, 2,3-dihydro-benzo[1,4]dioxinyl, 2,3-dihydro-benzofuryl, 2,4-dihydro-3-oxo-pyrazolyl, 2*H*-benzopyranyl, 2-oxo-benzopyranyl, 3,4-dihydro-2*H*-

benzo[b][1,4]dioxepinyl, 4-oxo-1,5,6,7-tetrahydro-indolyl, 4-oxo-benzopyranyl, 9*H*-carbazolyl, 9*H*-xanthenyl, benzo[1,3]dioxolyl, benzo[2,1,3]oxadiazolyl, benzo[1,2,5]oxadiazolyl, benzo[b]thienyl, benzofuryl, benzothiazolyl, furyl, imidazo[2,1-b]thiazolyl, imidazolyl, isoxazolyl, morpholino, pyrazolyl, pyridyl, pyrimidyl, quinolyl, quinoxalyl, thiazolyl, or thienyl; and

halogen is fluoro, chloro, bromo, or iodo; or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

- 53. The compound according to claim 52 wherein R_1 is selected from the group consisting of:
 - (i) C_{1-7} alkyl, and

C₁₋₇ alkyl substituted by substituent(s) independently selected from the group consisting of:

- \cdot C₁₋₅ alkoxy,
- •C₁₋₅ alkoxy substituted by carbocyclic aryl,
- ·carbocyclic aryloxy,
- •carbocyclic aryloxy substituted by halogen,
- •mono-C₁₋₅ alkylamino,
- •mono-C₁₋₅ alkylamino substituted by substituent(s) independently selected from the group consisting of:
 - ••cyano, and
 - ••carbocyclic aryl,
- •di-C₁₋₅ alkylamino,
- •di-C₁₋₅ alkylamino substituted by substituent(s) independently selected from the group consisting of:

oocyano, and

- ocarbocyclic aryl,
- ·mono-carbocyclic arylamino,
- •di-carbocyclic arylamino,

- •mono-carbocyclic arylamino substituted by C₁₋₅ alkyl,
- •di-carbocyclic arylamino substituted by C₁₋₅ alkyl,
- ocarbocyclic aryl,
- •carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
 - ∘∘halogen,
 - ∞C₁₋₅ alkyl, and
 - ∘∘C₁₋₅ alkoxy,
- (ii) C_{2-7} alkenyl, and

C₂₋₇ alkenyl substituted by substituent(s) independently selected from the group consisting of:

- •carbocyclic aryl, and
- •carbocyclic aryl substituted by C₁₋₅ alkoxy,
- (iii) C₂₋₅ alkynyl, and

 C_{2-5} alkynyl substituted by carbocyclic aryl,

(iv) carbocyclic aryl, and

carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

- ·halogen,
- •hydroxy,
- •cyano,
- •C₁₋₅ alkyl,
- •C₁₋₅ alkyl substituted by halogen,
- ∘C₁₋₅ alkoxy,

 ${}_{\circ}C_{1-5}$ alkoxy substituted by substituent(s) independently selected from the group consisting of:

- ••halogen,
- ··carbocyclic aryl, and

WO 2004/087669

••carbocyclic aryl substituted by halogen,

∘C₂₋₅ alkenyloxy,

omono-C₁₋₅ alkylamino,

odi-C₁₋₅ alkylamino,

 ${}^{\circ}$ mono- C_{1-5} alkylamino substituted by cyano,

odi-C₁₋₅ alkylamino substituted by cyano,

°C₁₋₅ alkylthio, and

°C₁₋₅ alkylthio substituted by halogen,

(v) heterocyclyl, and

heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

- ·halogen,
- \cdot C₁₋₅ alkyl,
- •C₁₋₅ alkyl substituted by hydroxy,
- •C₁₋₅ alkoxy,
- ·carbocyclic arylthio,
- •carbocyclic arylthio substituted by C_{1-5} alkoxycarbonyl,
- •C₁₋₅ alkoxycarbonyl,
- ·carbocyclic aryl,
- •carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen,
 - ••C₁₋₅ alkyl, and
 - ••C₁₋₅ alkyl substituted by halogen;

L is Formula (VII);

Y is a single bond or -CH₂-;

wherein carbocyclic aryl is phenyl or naphthyl;

heterocyclyl is 1*H*-indolyl, 1*H*-pyrrolyl, 2,3-dihydro-benzo[1,4]dioxinyl, 4-oxo-benzopyranyl, 9H-carbazolyl, benzo[1,3]dioxolyl, benzo[b]thienyl, furyl, imidazo[2,1-b]thiazolyl, pyrazolyl, pyridyl, or thienyl; and

halogen is fluoro, chloro, bromo, or iodo; or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

- 54. The compound according to claim 53 wherein R₂ is methylamino, or dimethylamino; p is 0; R₃ and R₄ are hydrogen; A is a single bond; B is a single bond or -CH₂-; or a pharmaceutically acceptable salt, hydrate, or solvate thereof.
- The compound according to claim 54 wherein R₁ is selected from the group consisting of: 55.
 - C_{2-5} alkenyl, and (i) C₂₋₅ alkenyl substituted by carbocyclic aryl,
 - (ii) carbocyclic aryl, and carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
 - ·halogen,
 - •hydroxy,
 - •C₁₋₅ alkyl,
 - •C₁₋₅ alkoxy,
 - •C₁₋₅ alkoxy substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen,
 - ••carbocyclic aryl, and
 - ocarbocyclic aryl substituted by halogen,
 - ∘C₂₋₅ alkenyloxy,
 - •mono-C₁₋₅ alkylamino,
 - •di-C₁₋₅ alkylamino,

- ${}^\bullet mono\text{-}C_{1\text{--}5}$ alkylamino substituted by cyano, and
- •di-C₁₋₅ alkylamino substituted by cyano,
- (iii) heterocyclyl, and

heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

- •halogen,
- ∘C₁₋₅ alkyl,
- ∘C₁₋₅ alkoxy,
- •C₁₋₅ alkoxycarbonyl,
- •carbocyclic aryl,
- •carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen,
 - ••C₁₋₅ alkyl, and
 - ••C₁₋₅ alkyl substituted by halogen;

wherein carbocyclic aryl is phenyl or naphthyl;

heterocyclyl is 1H-indolyl, 9H-carbazolyl, benzo[1,3]dioxolyl, pyrazolyl, or pyridyl; and

halogen is fluoro, chloro, bromo, or iodo; or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

- 56. The compound according to claim 55 wherein R₁ is selected from the group consisting of:
 - (i) $C_{2.5}$ alkenyl, and $C_{2.5}$ alkenyl substituted by carbocyclic aryl,
 - (ii) carbocyclic aryl, and
 carbocyclic aryl substituted by substituent(s) independently selected from
 the group consisting of:
 halogen,

- ·hydroxy,
- °C₁₋₅ alkyl,
- ∘C₁₋₅ alkoxy,
- ∘C₁₋₅ alkoxy substituted by halogen,
- ∘C₂₋₅ alkenyloxy,
- (iii) heterocyclyl, and

heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

- •halogen,
- •C₁₋₅ alkyl,
- •C₁₋₅ alkoxy,
- •C₁₋₅ alkoxycarbonyl,
- ·carbocyclic aryl,
- •carbocyclic aryl substituted by C_{1-5} alkyl, and
- •carbocyclic aryl substituted by halogenated C₁₋₅ alkyl;

wherein carbocyclic aryl is phenyl or naphthyl;

heterocyclyl is 1H-indolyl, 9H-carbazolyl, benzo[1,3]dioxolyl, or

pyrazolyl; and

halogen is fluoro, chloro, bromo, or iodo;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

57. The compound according to claim 1 selected from the group consisting of:

 $N^2\text{-}(cis-4-\{[(5\text{-bromo-1H-indol-3-yl})methyl]amino}\} cyclohexyl)-N^4,N^4-dimethylpyrimidine-2,4-diamine;$

 N^2 -[cis-4-({[5-(4-fluorophenyl)pyridin-3-yl]methyl}amino)cyclohexyl]- N^4 , N^4 -dimethylpyrimidine-2,4-diamine;

ethyl 4,6-dichloro-3-{[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}-cyclohexyl)amino]methyl}-1H-indole-2-carboxylate;

 $N^2\text{-(cis-4-}\{[(2,6\text{-dimethoxybenzyl})amino]methyl}\ cyclohexyl)-N^4,N^4-\\$ dimethylpyrimidine-2,4-diamine;

 $N^2\hbox{-(cis-4-{[(2-ethoxybenzyl)amino]methyl}}\ cyclohexyl)-N^4,N^4-\\ dimethylpyrimidine-2,4-diamine;$

 $N^2\text{-}[\text{cis-4-}(\{[(4\text{-methoxy-1-naphthyl})\text{methyl}]\text{amino}\}\text{methyl})\text{cyclohexyl}]\text{-}N^4\text{,}N^4\text{-}dimethylpyrimidine-2,4-diamine;}$

 $N^2-[cis-4-(\{[(5-methoxy-1H-indol-3-yl)methyl]amino\}methyl)cyclohexyl]-N^4,N^4-dimethylpyrimidine-2,4-diamine;$

 $N^2\text{-[cis-4-(\{[(2\text{-methoxy-1-naphthyl})methyl]amino}\} methyl)cyclohexyl]-N^4,N^4-dimethylpyrimidine-2,4-diamine;}$

4-bromo-2-({[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}-cyclohexyl)methyl]amino}methyl)-6-methoxyphenol;

 $N^2\text{-[cis-4-(\{[(5\text{-bromo-1H-indol-3-yl})methyl]amino}\} methyl)cyclohexyl]-N^4,N^4-dimethylpyrimidine-2,4-diamine;}$

 $N^2\text{-(cis-4-}\{[(2,4\text{-dimethoxybenzyl})\text{amino}]\text{methyl}\}\text{cyclohexyl})-N^4,N^4-\\$ dimethylpyrimidine-2,4-diamine;

 N^4 , N^4 -dimethyl- N^2 -(cis-4-{[(2,3,4-trimethoxybenzyl)amino]methyl}-cyclohexyl)pyrimidine-2,4-diamine;

 $N^2\text{-(cis-4-}\{[(3\text{-ethoxy-4-methoxybenzyl})amino]methyl\}\ cyclohexyl)-N^4,N^4-dimethylpyrimidine-2,4-diamine;$

 $N^4,N^4-dimethyl-N^2-(cis-4-\{[(\{3-[4-(trifluoromethyl)phenyl]-1H-pyrazol-4-yl\}methyl)amino]methyl\}cyclohexyl)pyrimidine-2,4-diamine;$

 $N^4,N^4-dimethyl-N^2-(cis-4-\{[(3,4,5-trimethoxybenzyl)amino]methyl\}-\\ cyclohexyl)pyrimidine-2,4-diamine;$

4-({[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-methyl]amino}methyl)-2-iodo-6-methoxyphenol;

. 4-({[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-amino}methyl)-2,6-dimethylphenol;

 N^2 -(cis-4-{[(5-bromo-2,4-dimethoxybenzyl)amino]methyl}cyclohexyl)- N^4 , N^4 -dimethylpyrimidine-2,4-diamine;

 $N^2-(cis-4-\{[(5-bromo-2-methoxybenzyl)amino]methyl\}cyclohexyl)-N^4,N^4-dimethylpyrimidine-2,4-diamine;$

 $N^2-[cis-4-(\{[4-(diethylamino)benzyl]amino\}methyl)cyclohexyl]-N^4,N^4-dimethylpyrimidine-2,4-diamine;$

 $N^2-[cis-4-(\{[(9-ethyl-9H-carbazol-3-yl)methyl]amino\}methyl)cyclohexyl]-N^4,N^4-dimethylpyrimidine-2,4-diamine;$

 $N^2\text{-(cis-4-{[(4-isopropoxybenzyl)amino]methyl}}\text{-}cyclohexyl)-N^4,N^4-\\$ dimethylpyrimidine-2,4-diamine;

 $N^2\text{-}(cis-4-\{[(3,3-diphenylprop-2-en-1-yl)amino]methyl\}cyclohexyl)-N^4,N^4-dimethylpyrimidine-2,4-diamine;$

4-({[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-amino}methyl)-2-ethoxyphenol;

 $N^2-\{cis-4-[(\{[4-(dimethylamino)-1-naphthyl]methyl\}amino)methyl]-cyclohexyl\}-N^4, N^4-dimethylpyrimidine-2, 4-diamine;$

 $N^4,N^4-dimethyl-N^2-(cis-4-\{[(2,4,6-trimethoxybenzyl)amino]methyl\}-\\ cyclohexyl)pyrimidine-2,4-diamine;$

 $N^2 - \{(5-bromo-2-ethoxybenzyl)amino] methyl\} cyclohexyl) - N^4, N^4 - dimethylpyrimidine - 2, 4-diamine;$

 $N^2\text{-}(cis-4-\{[(2,4-dimethoxy-3-methylbenzyl)amino]methyl\}\,cyclohexyl)-N^4,N^4-dimethylpyrimidine-2,4-diamine;$

 $N^2\mbox{-(cis-4-{[(2,5-diethoxybenzyl)amino]methyl} cyclohexyl)-}N^4\mbox{-}N^4\mbox{-}$ $\mbox{dimethylpyrimidine-2,4-diamine;}$

 $N^2\text{-}(cis-4-\{[(2,4\text{-}diethoxybenzyl)amino]methyl}\} cyclohexyl)-N^4,N^4-dimethylpyrimidine-2,4-diamine;$

N²-(cis-4-{[(3,5-dibromo-2-methoxybenzyl)amino]methyl}cyclohexyl)-N⁴,N⁴-dimethylpyrimidine-2,4-diamine;

 $N^4, N^4-dimethyl-N^2-(cis-4-\{[(2,4,5-triethoxybenzyl)amino]methyl\}-\\$ cyclohexyl)pyrimidine-2,4-diamine;

 $N^4,N^4-dimethyl-N^2-(cis-4-\{[(2,4,5-trimethoxybenzyl)amino]methyl\}-\\ cyclohexyl)pyrimidine-2,4-diamine;$

 $N^2\hbox{-[cis-4-(\{[2\hbox{-(allyloxy})benzyl]amino}\} methyl)cyclohexyl]-N^4,} N^4-dimethylpyrimidine-2,} 4-diamine;$

 N^4 , N^4 -dimethyl- N^2 -[cis-4-({[(1-methyl-1H-indol-3-yl)methyl]amino}-methyl)cyclohexyl]pyrimidine-2,4-diamine;

 $N^2-[cis-4-(\{[(7-methoxy-1,3-benzodioxol-5-yl)methyl]amino\}methyl)-\\ cyclohexyl]-N^4,N^4-dimethylpyrimidine-2,4-diamine;$

 $N^2\text{-}(\text{cis-4-}\{[(3\text{-bromo-4,5-dimethoxybenzyl})\text{amino}]\text{methyl}\}\text{cyclohexyl})\text{-}N^4\text{-}N^4\text{-}dimethylpyrimidine-2,4-diamine};$

 $N^2\text{-(cis-4-{[(4-methoxy-3-methylbenzyl)amino]methyl}}\ cyclohexyl)-N^4,N^4-dimethylpyrimidine-2,4-diamine;$

 $N^2-(cis-4-\{[(2-bromo-4,5-dimethoxybenzyl)amino]methyl\} cyclohexyl)-N^4,N^4-dimethylpyrimidine-2,4-diamine;$

 $N^2\text{-(cis-4-}\{[(3,4\text{-dimethoxybenzyl})\text{amino}]\text{methyl}\}\text{cyclohexyl})\text{-}N^4\text{,}N^4\text{-}$ dimethylpyrimidine-2,4-diamine;

 $N^2\text{-(cis-4-{[(4-methoxy-2,5-dimethylbenzyl)amino]methyl}}\ cyclohexyl)-N^4,N^4-dimethylpyrimidine-2,4-diamine;$

3-[[4-({[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-methyl]amino}methyl)phenyl](methyl)amino]propanenitrile;

 N^2 -{cis-4-[({4-[(4-bromobenzyl)oxy]benzyl}amino)methyl]cyclohexyl}- N^4 , N^4 -dimethylpyrimidine-2,4-diamine;

N²-(cis-4-{[(3,5-dibromo-2-ethoxybenzyl)amino]methyl}cyclohexyl)-N⁴,N⁴-dimethylpyrimidine-2,4-diamine;

N²-[4-(4-bromo-2-trifluoromethoxy-benzyl)amino-cyclohexyl]-N⁴,N⁴-dimethyl-pyrimidine-2,4-diamine;

 $N^2-\{cis-4-[2-(4-bromo-2-trifluoromethoxy-phenyl)-ethylamino]-cyclohexyl\}-\\N^4,N^4-dimethyl-pyrimidine-2,4-diamine; and$

 $N^2-\{cis-4-[(4-bromo-2-trifluoromethoxy-benzyl)amino-methyl]-cyclohexyl\}-\\N^4,N^4-dimethyl-pyrimidine-2,4-diamine;$

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

58. The compound according to claim 57 selected from the group consisting of:

ethyl 4,6-dichloro-3-{[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}-cyclohexyl)amino]methyl}-1H-indole-2-carboxylate;

 N^2 -[cis-4-({[(4-methoxy-1-naphthyl)methyl]amino}methyl)cyclohexyl]- N^4 , N^4 -dimethylpyrimidine-2,4-diamine;

 N^2 -[cis-4-({[(2-methoxy-1-naphthyl)methyl]amino}methyl)cyclohexyl]- N^4 , N^4 -dimethylpyrimidine-2,4-diamine;

4-bromo-2-({[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}-cyclohexyl)methyl]amino}methyl)-6-methoxyphenol;

 N^2 -[cis-4-({[(5-bromo-1H-indol-3-yl)methyl]amino}methyl)cyclohexyl]- N^4 , N^4 -dimethylpyrimidine-2,4-diamine;

 N^4 , N^4 -dimethyl- N^2 -(cis-4-{[(2,3,4-trimethoxybenzyl)amino]methyl}-cyclohexyl)pyrimidine-2,4-diamine;

 N^2 -(cis-4-{[(3-ethoxy-4-methoxybenzyl)amino]methyl}cyclohexyl)- N^4 , N^4 -dimethylpyrimidine-2,4-diamine;

N⁴,N⁴-dimethyl-N²-(cis-4-{[({3-[4-(trifluoromethyl)phenyl]-1H-pyrazol-4-vl}methyl)amino]methyl}cyclohexyl)pyrimidine-2,4-diamine;

4-({[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-amino}methyl)-2-iodo-6-methoxyphenol;

4-({[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-amino}methyl)-2,6-dimethylphenol;

 $N^2\text{-}(cis-4-\{[(5\text{-bromo-}2,4\text{-dimethoxybenzyl})amino]methyl\}cyclohexyl)-N^4,N^4-dimethylpyrimidine-2,4-diamine;$

 $N^2\text{-(cis-4-{[(5-bromo-2-methoxybenzyl)amino]methyl}} cyclohexyl)-N^4, N^4-dimethylpyrimidine-2, 4-diamine;$

N²-[cis-4-({[(9-ethyl-9H-carbazol-3-yl)methyl]amino}methyl)cyclohexyl]-N⁴,N⁴-dimethylpyrimidine-2,4-diamine;

 N^2 -(cis-4-{[(3,3-diphenylprop-2-en-1-yl)amino]methyl}cyclohexyl)- N^4 , N^4 -dimethylpyrimidine-2,4-diamine;

 N^4,N^4 -dimethyl- N^2 -(cis-4-{[(2,4,6-trimethoxybenzyl)amino]methyl}-cyclohexyl)pyrimidine-2,4-diamine;

 $N^2\text{-(cis-4-}\{[(5\text{-bromo-2-ethoxybenzyl})amino]methyl\} cyclohexyl)-N^4,N^4-dimethylpyrimidine-2,4-diamine;$

 $N^2\text{-}(\text{cis-4-}\{[(2,4\text{-dimethoxy-3-methylbenzyl})amino]methyl}\} cyclohexyl)-N^4,N^4-\\$ dimethylpyrimidine-2,4-diamine;

 $N^2\mbox{-(cis-4-{[(2,5-diethoxybenzyl)amino]methyl} cyclohexyl)-}N^4\mbox{-}N^4\mbox{-}$ $\mbox{dimethylpyrimidine-2,4-diamine;}$

 $N^2\text{-}(\text{cis-4-}\{[(3,5\text{-dibromo-2-methoxybenzyl})amino]methyl}\}\text{cyclohexyl})-N^4,N^4-\\$ dimethylpyrimidine-2,4-diamine;

 $N^4,N^4-dimethyl-N^2-(cis-4-\{[(2,4,5-triethoxybenzyl)amino]methyl\}-\\ cyclohexyl)pyrimidine-2,4-diamine;$

 $N^2-[\text{cis-4-}(\{[2-(\text{allyloxy})\text{benzyl}]\text{amino}\}\text{methyl})\text{cyclohexyl}]-N^4,N^4-\\$ dimethylpyrimidine-2,4-diamine;

 $N^2-[cis-4-(\{[(7-methoxy-1,3-benzodioxol-5-yl)methyl]amino\}methyl)-\\ cyclohexyl]-N^4,N^4-dimethylpyrimidine-2,4-diamine;$

N²-(cis-4-{[(3-bromo-4,5-dimethoxybenzyl)amino]methyl}cyclohexyl)-N⁴,N⁴-dimethylpyrimidine-2,4-diamine;

 $N^2-\{cis-4-[2-(4-bromo-2-trifluoromethoxy-phenyl)-ethylamino]-cyclohexyl\}-\\N^4,N^4-dimethyl-pyrimidine-2,4-diamine; and$

WO 2004/087669

PCT/JP2004/004624

989

 $N^2-\{cis-4-[(4-bromo-2-trifluoromethoxy-benzyl)amino-methyl]-cyclohexyl\}-\\ N^4,N^4-dimethyl-pyrimidine-2,4-diamine;$

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

- 59. The compound according to claim 52 wherein R_1 is selected from the group consisting of:
 - (i) C₁₋₅ alkyl, and

C₁₋₅ alkyl substituted by substituent(s) independently selected from the group consisting of:

- •oxo,
- $\cdot C_{1-5}$ alkoxy,
- •C₁₋₅ alkoxy substituted by carbocyclic aryl,
- •C₁₋₅ alkylcarbonyloxy,
- ·carbocyclic aryloxy,
- •carbocyclic aryloxy substituted by halogen,
- •carbocyclic aryloxy substituted by nitro,
- •carbocyclic aryloxy substituted by C₁₋₅ alkoxy,
- heterocyclyloxy,
- •heterocyclyloxy substituted by C₁₋₅ alkyl,
- •mono-C₁₋₅ alkylaminocarbonyl,
- •di-C₁₋₅ alkylaminocarbonyl,
- •mono-C₁₋₅ alkylamino,
- •di-C₁₋₅ alkylamino,
- ·mono-carbocyclic arylamino,
- ·di-carbocyclic arylamino,
- omono-carbocyclic arylamino substituted by halogen,
- odi-carbocyclic arylamino substituted by halogen,
- ·carbocyclic arylcarbonylamino,
- •C₁₋₅ alkoxycarbonylamino,

990

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•C<sub>1-5</sub> alkylthio,
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^eC₁₋₅ alkylthio substituted by substituent(s) independently selected from the group consisting of:

oocarbocyclic aryl, and

••carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

•••halogen, and

∞∞C₁₋₅ alkoxy,

- •carbocyclic arylthio,
- •heterocyclylthio,
- •heterocyclylthio substituted by C₁₋₅ alkyl,
- •heterocyclylthio substituted by nitro,
- •C₃₋₆ cycloalkyl,
- •C₃₋₆ cycloalkenyl,
- ·carbocyclyl,
- •carbocyclyl substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen,
 - ••C₁₋₅ alkyl,
 - ••C₁₋₅ alkoxy,
 - ••C₂₋₅ alkenyl, and
 - ••C₂₋₅ alkenyl substituted by substituent(s) independently selected from the group consisting of:

» carbocyclic aryl, and

oocarbocyclic aryl substituted by C₁₋₅ alkylsulfinyl,

- ocarbocyclic aryl,
- •carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

991

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••halogen,
         oohydroxy,
         oonitro,
         ∘∘C<sub>1-5</sub> alkyl,
         ••C<sub>1-5</sub> alkyl substituted by substituent(s) independently selected
         from the group consisting of:
                   °°°OXO,
                   ocarbocyclic aryl, and
                   •••heterocyclyl,
         ••C<sub>1-5</sub> alkoxy,
         ••C<sub>1-5</sub> alkoxy substituted by halogen,
         ••C<sub>1-5</sub> alkoxy substituted by carbocyclic aryl,
         ••carbocyclic aryloxy,
         ••carbocyclic aryl, and
         ••heterocyclyl,
·heterocyclyl, and
•heterocyclyl substituted by substituent(s) independently selected from the
group consisting of:
         ••C_{1-5} alkyl,
         ••C<sub>1-5</sub> alkyl substituted by carbocyclic aryl,
         ••C<sub>1-5</sub> alkoxy,
         ••C<sub>1-5</sub> alkoxy substituted by carbocyclic aryl,
         ··carbocyclic aryl, and
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(ii) C₂₋₅ alkenyl, and

 C_{2-5} alkenyl substituted by substituent(s) independently selected from the group consisting of:

...carbocyclic aryl substituted by halogen,

·carbocyclic aryl,

•carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

oohalogen, and

∘∘nitro,

(iii) C₃₋₆ cycloalkyl, and

C₃₋₆ cycloalkyl substituted by substituent(s) independently selected from the group consisting of:

°C₁₋₅ alkyl,

•C₁₋₅ alkyl substituted by substituent(s) independently selected from the group consisting of:

••oxo, and

••carbocyclic aryl, and

·carbocyclic aryl,

- (iv) carbocyclyl,
- (v) carbocyclic aryl, andcarbocyclic aryl substituted by substituent(s) independently selected fromthe group consisting of:
 - ·halogen,
 - •hydroxy,
 - •cyano,
 - •nitro,
 - •C₁₋₅ alkyl,
 - •C₁₋₅ alkyl substituted by substituent(s) independently selected from the group consisting of:

∘∘halogen,

°°OXO,

- ••carbocyclic aryloxy,
- ··carbocyclic aryl, and

- ••carbocyclic aryl substituted by C₁₋₅ alkyl,
- °C₁₋₅ alkoxy,
- °C₁₋₅ alkoxy substituted by substituent(s) independently selected from the group consisting of:
 - oohalogen, and
 - oocarbocyclic aryl,
- ·carbocyclic aryloxy,
- •carbocyclic aryloxy substituted by C₁₋₅ alkoxy,
- •mono-C₁₋₅ alkylaminocarbonyl,
- •di-C₁₋₅ alkylaminocarbonyl,
- •mono-C₁₋₅ alkylaminocarbonyl substituted by carbocyclic aryl,
- •di-C₁₋₅ alkylaminocarbonyl substituted by carbocyclic aryl,
- ·amino,
- •mono-C₁₋₅ alkylamino,
- •di-C₁₋₅ alkylamino,
- •C₂₋₅ alkynylcarbonylamino,
- •C₂₋₅ alkynylcarbonylamino substituted by carbocyclic aryl,
- •(carbocyclic aryl)NHC(O)NH,
- •(carbocyclic aryl)NHC(O)NH substituted by C₁₋₅ alkoxy,
- •(carbocyclic aryl)NHC(O)NH substituted by haloganated C₁₋₅ alkoxy,
- \cdot C_{1.5} alkylthio,
- •C₁₋₅ alkylthio substituted by halogen,
- •carbocyclic arylthio,
- ecarbocyclic arylthio substituted by cyano,
- omono-C₁₋₅ alkylaminosulfonyl,
- odi-C1-5 alkylaminosulfonyl, and
- ·carbocyclic aryl,
- •carbocyclic aryl substituted by halogen,

- •heterocyclyl, and
- •heterocyclyl substituted by substituent(s) independently selected from the group consisting of:
 - ∘∘C₁₋₅ alkyl,
 - ocarbocyclic aryl, and
 - oohalogenated carbocyclic aryl,
- (vi) heterocyclyl, and

heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

- •halogen,
- •nitro,
- •C₁₋₅ alkyl,
- •C₁₋₅ alkyl substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen,
 - ••C₁₋₅ alkylthio,
 - ••C₁₋₅ alkylthio substituted by carbocyclic aryl,
 - ••C₁₋₅ alkylthio substituted by halogenated carbocyclic aryl,
 - ••carbocyclic aryl,
 - ••carbocyclic aryl substituted by halogen, and
 - ••heterocyclyl,
- •C₁₋₅ alkoxy,
- ·carbocyclic aryloxy,
- ocarbocyclic aryloxy substituted by halogen,
- ocarbocyclic aryloxy substituted by C₁₋₅ alkyl,
- °C₁₋₅ alkylthio,
- •C₂₋₅ alkenylthio,
- ·carbocyclic arylthio,

995

•C₁₋₅ alkylsulfonyl,

ocarbocyclic arylsulfonyl,

ocarbocyclic arylsulfonyl substituted by C₁₋₅ alkyl,

ocarbocyclic aryl,

•carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

••halogen,

onitro, and

••C₁₋₅ alkyl,

·heterocyclyl;

L is Formula (VII);

Y is -C(O)-;

wherein carbocyclic aryl is phenyl, naphthyl, or anthranyl; carbocyclyl is 1,2,3,4-tetrahydronaphthyl, 1-oxo-indanyl, 9-oxo-9*H*-fluorenyl, or indenyl;

heterocyclyl is 1,2,3-triazolyl, 1*H*-indolyl, 1*H*-pyrrolyl, 2,3-dihydro-1-oxo-isoindolyl, 2,3-dihydro-benzofuryl, 2,4-dihydro-3-oxo-pyrazolyl, 2*H*-benzopyranyl, 2-oxo-benzopyranyl, 4-oxo-1,5,6,7-tetrahydro-indolyl, 9*H*-xanthenyl, benzo[1,3]dioxolyl, benzo[2,1,3]oxadiazolyl, benzo[1,2,5]oxadiazolyl, benzo[b]thienyl, benzofuryl, benzothiazolyl, furyl, imidazolyl, isoxazolyl, morpholino, pyrazolyl, pyridyl, pyrimidyl, quinolyl, quinoxalyl, thiazolyl, or thienyl; and

halogen is fluoro, chloro, bromo, or iodo; or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

60. The compound according to claim 59 wherein R₂ is hydrogen, trifluoromethyl, methoxy, methylamino, dimethylamino, ethylamino, ethylamino, or

WO 2004/087669

hydroxylethylmethylamino; p is 0; R₃ and R₄ are hydrogen; A is a single bond; B is a single bond or -CH₂-;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

- 61. The compound according to claim 60 wherein R_1 is selected from the group consisting of:
 - (i) C_{1-5} alkyl, and

C₁₋₅ alkyl substituted by substituent(s) independently selected from the group consisting of:

- •oxo,
- carbocyclic aryloxy,
- •carbocyclic aryloxy substituted by halogen,
- •carbocyclic aryloxy substituted by C₁₋₅ alkoxy,
- •mono-C₁₋₅ alkylaminocarbonyl,
- •di-C₁₋₅ alkylaminocarbonyl,
- •mono-C₁₋₅ alkylamino,
- •di-C₁₋₅ alkylamino,
- •mono-carbocyclic arylamino,
- •di-carbocyclic arylamino,
- •mono-carbocyclic arylamino substituted by halogen,
- •di-carbocyclic arylamino substituted by halogen,
- •carbocyclic arylcarbonylamino,
- •C₁₋₅ alkylthio,
- •C₃₋₆ cycloalkyl,
- ocarbocyclyl,
- °carbocyclyl substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen,
 - ••C₁₋₅ alkyl,

997

••C₂₋₅ alkenyl, and

••C₂₋₅ alkenyl substituted by substituent(s) independently selected from the group consisting of:

ooocarbocyclic aryl, and

ocarbocyclic aryl substituted by C₁₋₅ alkylsulfinyl,

ocarbocyclic aryl,

*carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

- ··halogen,
- ••hydroxy,
- ••nitro,
- ••C₁₋₅ alkyl,
- ••C₁₋₅ alkyl substituted by substituent(s) independently selected from the group consisting of:
 - •••oxo,
 - •••carbocyclic aryl, and
 - •••heterocyclyl,
- ••C₁₋₅ alkoxy,
- ••C₁₋₅ alkoxy substituted by halogen,
- ·heterocyclyl, and
- •heterocyclyl substituted by substituent(s) independently selected from the group consisting of:
 - ••C₁₋₅ alkyl,
 - ••carbocyclic aryl, and
 - ocarbocyclic aryl substituted by halogen,
- (ii) C₂₋₅ alkenyl, and

C₂₋₅ alkenyl substituted by substituent(s) independently selected from the group consisting of:

·carbocyclic aryl,

*carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

oohalogen, and

oonitro,

- (iii) carbocyclyl,
- (iv) carbocyclic aryl, andcarbocyclic aryl substituted by substituent(s) independently selected fromthe group consisting of:
 - •halogen,
 - •hydroxy,
 - •nitro,
 - $\cdot C_{1-5}$ alkyl,
 - •C₁₋₅ alkyl substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen,
 - ••oxo, and
 - ··carbocyclic aryl,
 - •C₁₋₅ alkoxy,
 - •C₁₋₅ alkoxy substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen, and
 - ··carbocyclic aryl,
 - ocarbocyclic aryloxy,
 - •carbocyclic aryloxy substituted by C₁₋₅ alkoxy,
 - •mono-C₁₋₅ alkylaminocarbonyl,
 - •di-C₁₋₅ alkylaminocarbonyl,
 - •mono-C₁₋₅ alkylaminocarbonyl substituted by carbocyclic aryl,

- •di-C₁₋₅ alkylaminocarbonyl substituted by carbocyclic aryl,
- •mono-C₁₋₅ alkylamino,
- odi-C₁₋₅ alkylamino,
- °C₂₋₅ alkynylcarbonylamino,
- ${}^{\circ}C_{2-5}$ alkynylcarbonylamino substituted by carbocyclic aryl,
- omono-C₁₋₅ alkylaminosulfonyl, and
- •di-C₁₋₅ alkylaminosulfonyl,
- (v) heterocyclyl, and

heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

- ·halogen,
- •nitro,
- •C₁₋₅ alkyl,
- •C₁₋₅ alkyl substituted by substituent(s) independently selected from the group consisting of:
 - ••C₁₋₅ alkylthio,
 - ••C₁₋₅ alkylthio substituted by carbocyclic aryl,
 - ••C₁₋₅ alkylthio substituted by halogenated carbocyclic aryl,
 - ••carbocyclic aryl,
 - ··carbocyclic aryl substituted by halogen, and
 - ••heterocyclyl,
- •carbocyclic aryloxy,
- carbocyclic aryloxy substituted by halogen,
- •carbocyclic aryloxy substituted by C₁₋₅ alkyl,
- °C₁₋₅ alkylthio,
- ∘C₁₋₅ alkylsulfonyl,
- •carbocyclic arylsulfonyl,
- •carbocyclic arylsulfonyl substituted by C₁₋₅ alkyl,

1000

·carbocyclic aryl,

•carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

oohalogen,

oonitro, and

∘∘C₁₋₅ alkyl,

•heterocyclyl;

wherein carbocyclic aryl is phenyl or naphthyl;

carbocyclyl is 1-oxo-indanyl, 9-oxo-9H-fluorenyl, or indenyl;

heterocyclyl is 1,2,3-triazolyl, 1H-indolyl, 1H-pyrrolyl, 2,3-dihydro-

benzofuryl, 2H-benzopyranyl, 9H-xanthenyl, benzo[2,1,3]oxadiazolyl,

benzo[1,2,5]oxadiazolyl, benzo[b]thienyl, furyl, isoxazolyl, morpholino, pyrazolyl,

pyridyl, quinolyl, quinoxalyl, thiazolyl, or thienyl; and

halogen is fluoro, chloro, bromo, or iodo;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

- 62. The compound according to claim 61 wherein R_1 is selected from the group consisting of:
 - (i) C_{1-5} alkyl, and

C₁₋₅ alkyl substituted by substituent(s) independently selected from the group consisting of:

- •oxo,
- ·carbocyclic aryloxy,
- •carbocyclic aryloxy substituted by halogen,
- •carbocyclic aryloxy substituted by C₁₋₅ alkoxy,
- omono-C₁₋₅ alkylamino,
- •di-C₁₋₅ alkylamino,
- ·mono-carbocyclic arylamino,
- •di-carbocyclic arylamino,

1001

- •mono-carbocyclic arylamino substituted by halogen,
- odi-carbocyclic arylamino substituted by halogen,
- °C₁₋₅ alkylthio,
- °carbocyclic aryl,
- °carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen,
 - oohydroxy,
 - ••C₁₋₅ alkyl,
 - ••C₁₋₅ alkoxy, and
 - ••C₁₋₅ alkoxy substituted by halogen,
- •heterocyclyl, and
- •heterocyclyl substituted by substituent(s) independently selected from the group consisting of:
 - ••C₁₋₅ alkyl,
 - ••carbocyclic aryl, and
 - ••carbocyclic aryl substituted by halogen,
- (ii) C₂₋₅ alkenyl, and
 - C₂₋₅ alkenyl substituted by substituent(s) independently selected from the group consisting of:
 - •carbocyclic aryl,
 - •carbocyclic aryl substituted by nitro,
- (iii) carbocyclyl,
- (iv) carbocyclic aryl, andcarbocyclic aryl substituted by substituent(s) independently selected fromthe group consisting of:
 - ·halogen,
 - •hydroxy,

1002

- •nitro,
- °C₁₋₅ alkyl,
- ${}^{\circ}C_{1-5}$ alkyl substituted by halogen,
- °C₁₋₅ alkoxy,
- ${}^{\circ}C_{1-5}$ alkoxy substituted by halogen,
- °C₁₋₅ alkoxy substituted by carbocyclic aryl,
- ocarbocyclic aryloxy,
- \circ carbocyclic aryloxy substituted by C_{1-5} alkoxy,
- •mono-C₁₋₅ alkylaminocarbonyl,
- •di-C₁₋₅ alkylaminocarbonyl,
- •mono-C₁₋₅ alkylaminocarbonyl substituted by carbocyclic aryl,
- •di-C₁₋₅ alkylaminocarbonyl substituted by carbocyclic aryl,
- •mono-C₁₋₅ alkylaminosulfonyl, and
- •di-C₁₋₅ alkylaminosulfonyl,
- (v) heterocyclyl, and

heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

- ·halogen,
- •nitro,
- •C₁₋₅ alkyl,
- •C₁₋₅ alkyl substituted by substituent(s) independently selected from the group consisting of:
 - ••C₁₋₅ alkylthio,
 - ${}^{\circ \circ}C_{1-5}$ alkylthio substituted by carbocyclic aryl, and
 - ••C₁₋₅ alkylthio substituted by halogenated carbocyclic aryl,
- ocarbocyclic aryloxy,
- •carbocyclic aryloxy substituted by halogen,
- •carbocyclic aryloxy substituted by C₁₋₅ alkyl,

1003

·carbocyclic aryl,

ocarbocyclic aryl substituted by halogen,

ocarbocyclic aryl substituted by nitro, and

oheterocyclyl;

wherein carbocyclic aryl is phenyl or naphthyl;

carbocyclyl is 1-oxo-indanyl;

heterocyclyl is 1,2,3-triazolyl, 1H-indolyl, 1H-pyrrolyl, 2,3-dihydro-

benzofuryl, 9H-xanthenyl, benzo[2,1,3]oxadiazolyl, benzo[1,2,5]oxadiazolyl,

benzo[b]thienyl, furyl, isoxazolyl, pyridyl, quinoxalyl, thiazolyl, or thienyl; and

halogen is fluoro, chloro, bromo, or iodo;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

63. The compound according to claim 1 selected from the group consisting of:

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-3-methoxybenzamide;

3-bromo-N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-benzamide:

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-2,1,3-benzoxadiazole-5-carboxamide;

3-chloro-N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-benzamide;

4-chloro-N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-benzamide;

4-chloro-N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-3-nitrobenzamide;

3,5-dichloro-N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}-cyclohexyl)benzamide;

1004

3,4-dichloro-N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}-cyclohexyl)benzamide;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-2,2-diphenylacetamide;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-3,4-difluorobenzamide;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-3,5-difluorobenzamide;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-3-fluoro-5-(trifluoromethyl)benzamide;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-4-methyl-3-nitrobenzamide;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-3-nitrobenzamide;

 $N-(cis-4-\{[4-(dimethylamino)pyrimidin-2-yl]amino\}cyclohexyl)-2-phenoxybutanamide;$

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-3-methylbenzamide;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-3-(trifluoromethoxy)benzamide;

4-bromo-N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-3-methylbenzamide;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-3-iodobenzamide;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-2,5-dimethyl-3-furamide;

3-chloro-N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-4-fluorobenzamide;

1005

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-3,5-dimethoxybenzamide;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-3,5-bis(trifluoromethyl)benzamide;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-4-fluoro-3-methylbenzamide;

2,5-dichloro-N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}-cyclohexyl)thiophene-3-carboxamide;

1-benzyl-3-tert-butyl-N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}-cyclohexyl)-1H-pyrazole-5-carboxamide;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-2-(1-naphthyl)acetamide;

2-(4-chlorophenoxy)-N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}-cyclohexyl)acetamide;

1-(4-chlorophenyl)-N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}-cyclohexyl)cyclopentanecarboxamide;

3-(2-chloro-6-fluorophenyl)-N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-5-methylisoxazole-4-carboxamide;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-4-fluoro-3-(trifluoromethyl)benzamide;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-5-methyl-2-phenyl-2H-1,2,3-triazole-4-carboxamide;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-2-(4-methoxyphenoxy)-5-nitrobenzamide;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-2-phenoxyacetamide;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-quinoxaline-2-carboxamide;

1006

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-3-(trifluoromethyl)benzamide;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-2-(pentafluorophenoxy)acetamide;

2-(3-chlorophenoxy)-N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)acetamide;

3-(2,6-dichlorophenyl)-N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-5-methylisoxazole-4-carboxamide;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-2-phenoxynicotinamide;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-2-(4-methylphenoxy)nicotinamide;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-4-[(dipropylamino)sulfonyl]benzamide;

2-(4-chlorophenoxy)-N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-2-methylpropanamide;

2-(2,3-dihydro-1-benzofuran-5-yl)-N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-1,3-thiazole-4-carboxamide;

3-tert-butyl-1-(2,4-dichlorobenzyl)-N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-1H-pyrazole-5-carboxamide;

6-chloro-N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-2H-chromene-3-carboxamide;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-2-(2-thienyl)-1,3-thiazole-4-carboxamide;

5-(4-chloro-2-nitrophenyl)-N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-2-furamide;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-5-iodo-2-furamide;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-5-(4-methyl-2-nitrophenyl)-2-furamide;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-5-nitrothiophene-2-carboxamide;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-3-methyl-4-nitrobenzamide;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-3-methoxy-4-nitrobenzamide:

1-benzyl-N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-1H-indole-3-carboxamide;

3-acetyl-N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-benzamide;

5-bromo-N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-2-furamide;

5-(4-chlorophenyl)-N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}-cyclohexyl)-2-furamide;

4,5-dibromo-N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}-cyclohexyl)thiophene-2-carboxamide;

2-(3,5-di-tert-butyl-4-hydroxyphenyl)-N-(cis-4-{[4-(dimethylamino)-pyrimidin-2-yl]amino}cyclohexyl)acetamide;

 N^2 , N^6 -dibenzoyl-N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}-cyclohexyl)lysinamide;

3-(dimethylamino)-N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}-cyclohexyl)benzamide;

4,5-dibromo-N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}-cyclohexyl)-2-furamide;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-2-(1H-indol-3-yl)acetamide;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-2-(5-methyl-2-phenyl-1,3-thiazol-4-yl)acetamide;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-2-(1H-indol-3-yl)-4-oxo-4-phenylbutanamide;

4-(4-bromophenyl)-N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}-cyclohexyl)-2-(1H-indol-3-yl)-4-oxobutanamide;

3,5-dichloro-N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}-cyclohexyl)-2-[(3-phenylprop-2-ynoyl)amino]benzamide;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-2-(1-methyl-1H-indol-3-yl)-4-(4-methylphenyl)-4-oxobutanamide;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-2-methyl-1-(3-morpholin-4-ylpropyl)-5-phenyl-1H-pyrrole-3-carboxamide;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-4-(4-nitrophenyl)butanamide;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-2-(2-phenyl-1H-indol-3-yl)acetamide;

N²-benzoyl-N⁵-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}-cyclohexyl)-N¹,N¹-dipropylglutamamide;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-3-phenoxybenzamide;

3-benzoyl-N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}-cyclohexyl)benzamide;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-2-(ethylthio)-2,2-diphenylacetamide;

 $N-(cis-4-\{[4-(dimethylamino)pyrimidin-2-yl]amino\} cyclohexyl)-N'-[(1R)-1-(1-naphthyl)ethyl] phthalamide;$

(2S)-2-(3-benzoylphenyl)-N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)propanamide;

1009

 $\label{eq:N'-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}} \\ cyclohexyl)-N,N-bis[(1S)-1-phenylethyl]\\ phthalamide;$

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-2-{(1E)-5-fluoro-2-methyl-1-[4-(methylsulfinyl)benzylidene]-1H-inden-3-yl}acetamide;

 $N-(cis-4-\{[4-(dimethylamino)pyrimidin-2-yl]amino\} cyclohexyl)-2-[4-(2-thienylcarbonyl)phenyl]propanamide;$

3-(benzyloxy)-N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}-cyclohexyl)-4-methoxybenzamide;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-2-methyl-1,5-diphenyl-1H-pyrrole-3-carboxamide;

1-{2-[(2-chloro-6-fluorobenzyl)thio]ethyl}-N-(cis-4-{[4-(dimethylamino)-pyrimidin-2-yl]amino}cyclohexyl)-2-methyl-5-phenyl-1H-pyrrole-3-carboxamide;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-2-phenoxybenzamide;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-2-phenylquinoline-4-carboxamide;

2-[4-(4-chlorophenyl)-2-phenyl-1,3-thiazol-5-yl]-N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)acetamide;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-1-[(4-methylphenyl)sulfonyl]-1H-pyrrole-3-carboxamide;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-5-(3-nitrophenyl)-2-furamide;

3-chloro-N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-4-(isopropylsulfonyl)-5-(methylthio)thiophene-2-carboxamide;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-3-iodo-4-(isopropylsulfonyl)-5-(methylthio)thiophene-2-carboxamide;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-5-nitrothiophene-3-carboxamide;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-1-methyl-4-nitro-1H-pyrrole-2-carboxamide;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-4-nitrobenzamide;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-3,5-dimethyl-4-nitrobenzamide;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-2-mesityl-2-oxoacetamide;

3,5-di-tert-butyl-N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}-cyclohexyl)-4-hydroxybenzamide;

4-chloro-N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-methyl]benzamide;

(2E)-N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-methyl]-3-phenylacrylamide;

4-chloro-N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-methyl]-3-nitrobenzamide;

2-(4-chlorophenyl)-N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}-cyclohexyl)methyl]acetamide;

3,5-dichloro-N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}-cyclohexyl)methyl]benzamide;

3,4-dichloro-N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}-cyclohexyl)methyl]benzamide;

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-2,2-diphenylacetamide;

2,4-dichloro-N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}-cyclohexyl)methyl]-5-fluorobenzamide;

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-2-phenoxybutanamide;

 $N-[(cis-4-\{[4-(dimethylamino)pyrimidin-2-yl]amino\}cyclohexyl)methyl]-2-phenylbutanamide; \\$

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-2-(3-methoxyphenyl)acetamide;

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-2-(4-methoxyphenyl)acetamide;

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-3,5-bis(trifluoromethyl)benzamide;

(2E)-N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-methyl]-3-(4-nitrophenyl)acrylamide;

2-(2-bromophenyl)-N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}-cyclohexyl)methyl]acetamide;

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-2-(propylthio)nicotinamide;

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-2-(1-naphthyl)acetamide;

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-9-oxo-9H-fluorene-4-carboxamide;

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-2,4,6-trimethylbenzamide;

2,4,6-trichloro-N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}-cyclohexyl)methyl]benzamide;

(2E)-3-(2-chlorophenyl)-N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]acrylamide;

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-2-(2,3,6-trichlorophenyl)acetamide;

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-2,3-diphenylpropanamide;

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-5-iodo-2-furamide;

(2E)-N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-methyl]-3-(3-nitrophenyl)acrylamide;

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-3-oxoindane-1-carboxamide;

2-benzyl-N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-methyl]benzamide;

2,2-bis(4-chlorophenyl)-N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]acetamide;

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-3-methyl-4-nitrobenzamide;

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-3-methoxy-4-nitrobenzamide;

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-2-[2-(trifluoromethoxy)phenyl]acetamide;

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-9H-xanthene-9-carboxamide;

2-(1-benzothien-3-yl)-N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]acetamide;

N-[cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-2-(4-fluoro-phenoxy)-nicotinamide;

N-[cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-C-(ethyl-phenylamino)-acetamide;

C-[cis-(4-chloro-phenyl)-ethyl-amino]-N-[4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-acetamide;

.2-(3,4-difluoro-phenyl)-N-[cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-acetamide;

4-chloro-N-[cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-3-fluorobenzamide;

5-bromo-N-[cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-nicotinamide;

3-chloro-4-fluoro-N-[cis-4-(4-methylamino-pyrimidin-2-ylamino)-cyclohexyl]-benzamide;

N-[cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-4-fluorobenzamide;

3-chloro-N-[cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-5-fluorobenzamide;

N-[cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-3,4,5-trifluorobenzamide;

N-[cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexylmethyl]-3,4-difluorobenzamide;

2-(3,4-dichloro-phenoxy)-N-[cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-acetamide;

N-[cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-2-(3-methoxy-phenoxy)-acetamide; and

N-[cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-C-(ethyl-phenylamino)-acetamide;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

64. The compound according to claim 63 selected from the group consisting of:

3-bromo-N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-benzamide;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-2,1,3-benzoxadiazole-5-carboxamide;

WO 2004/087669

3-chloro-N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)benzamide;

4-chloro-N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-3nitrobenzamide;

3,5-dichloro-N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)benzamide;

3,4-dichloro-N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)benzamide;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-3,4difluorobenzamide;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-3nitrobenzamide;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-3-(trifluoromethoxy)benzamide;

4-bromo-N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-3methylbenzamide;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-3iodobenzamide;

3-chloro-N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-4fluorobenzamide;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-3,5dimethoxybenzamide;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-3,5bis(trifluoromethyl)benzamide;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-4-fluoro-3methylbenzamide;

. 2-(4-chlorophenoxy)-N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)acetamide;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-4-fluoro-3-(trifluoromethyl)benzamide;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-5-methyl-2-phenyl-2H-1,2,3-triazole-4-carboxamide;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-2-(4-methoxyphenoxy)-5-nitrobenzamide;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-quinoxaline-2-carboxamide;

2-(3-chlorophenoxy)-N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}-cyclohexyl)acetamide;

3-(2,6-dichlorophenyl)-N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-5-methylisoxazole-4-carboxamide;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-2-(4-methylphenoxy)nicotinamide;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-4-[(dipropylamino)sulfonyl]benzamide;

2-(2,3-dihydro-1-benzofuran-5-yl)-N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-1,3-thiazole-4-carboxamide;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-2-(2-thienyl)-1,3-thiazole-4-carboxamide;

5-(4-chloro-2-nitrophenyl)-N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-2-furamide;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-3-methoxy-4-nitrobenzamide;

5-bromo-N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-2-furamide;

5-(4-chlorophenyl)-N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}-cyclohexyl)-2-furamide;

- 2-(3,5-di-tert-butyl-4-hydroxyphenyl)-N-(cis-4-{[4-(dimethylamino)-pyrimidin-2-yl]amino}cyclohexyl)acetamide;
- 4,5-dibromo-N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}-cyclohexyl)-2-furamide;
- N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-2-(1H-indol-3-yl)-4-oxo-4-phenylbutanamide;
- N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-2-(1-methyl-1H-indol-3-yl)-4-(4-methylphenyl)-4-oxobutanamide;
- N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-2-(2-phenyl-1H-indol-3-yl)acetamide;
- N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-2-(ethylthio)-2,2-diphenylacetamide;
- N'-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-N,N-bis[(1S)-1-phenylethyl]phthalamide;
- 3-(benzyloxy)-N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}-cyclohexyl)-4-methoxybenzamide;
- N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-2-methyl-1,5-diphenyl-1H-pyrrole-3-carboxamide;
- 1-{2-[(2-chloro-6-fluorobenzyl)thio]ethyl}-N-(cis-4-{[4-(dimethylamino)-pyrimidin-2-yl]amino}cyclohexyl)-2-methyl-5-phenyl-1H-pyrrole-3-carboxamide;
- 2-[4-(4-chlorophenyl)-2-phenyl-1,3-thiazol-5-yl]-N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)acetamide;
- N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-5-nitrothiophene-3-carboxamide;
- N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-1-methyl-4-nitro-1H-pyrrole-2-carboxamide;
- 3,5-di-tert-butyl-N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}-cyclohexyl)-4-hydroxybenzamide;

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-2,2-diphenylacetamide;

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-2-phenylbutanamide;

(2E)-N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-methyl]-3-(4-nitrophenyl)acrylamide;

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-2-(1-naphthyl)acetamide;

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-2-(2,3,6-trichlorophenyl)acetamide;

(2E)-N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-methyl]-3-(3-nitrophenyl)acrylamide;

 $N-[(cis-4-\{[4-(dimethylamino)pyrimidin-2-yl]amino\}cyclohexyl)methyl]-3-oxoindane-1-carboxamide;$

2,2-bis(4-chlorophenyl)-N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]acetamide;

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-3-methyl-4-nitrobenzamide;

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-3-methoxy-4-nitrobenzamide;

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-2-[2-(trifluoromethoxy)phenyl]acetamide;

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-9H-xanthene-9-carboxamide;

2-(1-benzothien-3-yl)-N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]acetamide;

N-[cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-2-(4-fluoro-phenoxy)-nicotinamide;

N-[cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-C-(ethyl-phenylamino)-acetamide;

C-[cis-(4-chloro-phenyl)-ethyl-amino]-N-[4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-acetamide;

4-chloro-N-[cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-3-fluoro-benzamide;

N-[cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-3,4,5-trifluoro-benzamide;

2-(3,4-dichloro-phenoxy)-N-[cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-acetamide;

N-[cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-2-(3-methoxy-phenoxy)-acetamide; and

N-[cis-4-(4-dimethylamino-pyrimidin-2-ylamino)-cyclohexyl]-C-(ethyl-phenylamino)-acetamide;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

- 65. The compound according to claim 52 wherein R_1 is selected from the group consisting of:
 - (i) C_{1-5} alkyl, and

 C_{1-5} alkyl substituted by substituent(s) independently selected from the group consisting of:

- •C₁₋₅ alkoxy carbonyl,
- •C₁₋₅ alkylthio,
- ·carbocyclic aryl,
- •carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
 - oohalogen,
 - ••C₁₋₅ alkyl, and
 - ••C₂₋₅ alkenyl,

1019

(ii) C_{3-6} cycloalkyl, C_{3-6} cycloalkyl substituted by carbocyclic aryl,

(iii) carbocyclic aryl, and carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

•halogen,

ecyano,

onitro,

 \cdot C₁₋₅ alkyl,

•C₁₋₅ alkyl substituted by halogen,

•C₁₋₅ alkoxy carbonyl,

 $\cdot C_{1-5}$ alkoxy,

•C₃₋₆ cycloalkoxy,

•carbocyclic aryloxy,

•C₁₋₅ alkylthio, and

•carbocyclic aryl,

(iv) heterocyclyl, and

heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

 $\cdot C_{1-5}$ alkyl,

•C₁₋₅ alkyl substituted by halogen, and

·carbocyclic aryl;

L is Formula (VII);

Y is $-C(O)NR_5-$;

wherein carbocyclic aryl is phenyl or naphthyl;

heterocyclyl is 2,3-dihydro-benzo[1,4]dioxinyl, 3,4-dihydro-2*H*-

benzo[b][1,4]dioxepinyl, benzo[1,3]dioxolyl, furyl, or isoxazolyl; and

halogen is fluoro, chloro, bromo, or iodo;

1020

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

- 66. The compound according to claim 65 wherein R₂ is methylamino or dimethylamino; p is 0; R₃ and R₄ are hydrogen; A is a single bond; B is a single bond or -CH₂-: R₅ is hydrogen; or a pharmaceutically acceptable salt, hydrate, or solvate thereof.
- 67. The compound according to claim 66 wherein R₁ is selected from the group consisting of:
 - (i) C_{1-5} alkyl, and C_{1-5} alkyl substituted by carbocyclic aryl,
 - (ii) carbocyclic aryl, andcarbocyclic aryl substituted by substituent(s) independently selected fromthe group consisting of:
 - ·halogen,
 - •nitro,
 - •C₁₋₅ alkyl,
 - •C₁₋₅ alkyl substituted by halogen,
 - \cdot C₁₋₅ alkoxy, and
 - •C₃₋₆ cycloalkoxy,
 - heterocyclyl, and
 heterocyclyl substituted by C₁₋₅ alkyl, and
 heterocyclyl substituted by carbocyclic aryl;
 wherein carbocyclic aryl is phenyl or naphthyl;
 heterocyclyl is isoxazolyl; and
 halogen is fluoro, chloro, bromo, or iodo;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

68. The compound according to claim 1 selected from the group consisting of:

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-N'-mesitylurea;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-N'-(2,4,6-trichlorophenyl)urea;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-N'-(2,4,6-tribromophenyl)urea;

N-(2,4-dibromo-6-fluorophenyl)-N'-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)urea;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-N'-(diphenylmethyl)urea;

N-(4-bromo-2,6-dimethylphenyl)-N'-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)urea;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-N'-[1-(1-naphthyl)ethyl]urea;

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-N'-(3,4,5-trimethoxyphenyl)urea;

N-(4-chloro-2-methylphenyl)-N'-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)urea;

N-(5-chloro-2,4-dimethoxyphenyl)-N'-(cis-4-{[4-(dimethylamino)-pyrimidin-2-yl]amino}cyclohexyl)urea;

 $N-(4-bromo-2-methylphenyl)-N'-(cis-4-\{[4-(dimethylamino)pyrimidin-2-yl]amino\}cyclohexyl)urea;$

 $\label{eq:N-2-dibromo-4-isopropylphenyl} N'-(cis-4-\{[4-(dimethylamino)-pyrimidin-2-yl]amino\}cyclohexyl)urea;$

N-[3-(cyclopentyloxy)-4-methoxyphenyl]-N'-(cis-4-{[4-(dimethylamino)-pyrimidin-2-yl]amino}cyclohexyl)urea;

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-N'-(2,6-dimethylphenyl)urea;

N-(2,4-difluorophenyl)-N'-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]urea;

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-N'-(2-ethyl-6-methylphenyl)urea;

 $N-[(cis-4-\{[4-(dimethylamino)pyrimidin-2-yl]amino\}cyclohexyl)methyl]-N'-(4-fluorophenyl)urea;$

 $N-[(cis-4-\{[4-(dimethylamino)pyrimidin-2-yl]amino\} cyclohexyl)methyl]-N'-mesitylurea;$

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-N'-(2,4,6-trichlorophenyl)urea;

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-N'-(2,4,6-tribromophenyl)urea;

N-(2,4-dibromo-6-fluorophenyl)-N'-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]urea;

 $N-(2,6-diethylphenyl)-N'-[(cis-4-\{[4-(dimethylamino)pyrimidin-2-yl]amino\}cyclohexyl)methyl]urea;$

N-[2-chloro-6-(trifluoromethyl)phenyl]-N'-[(cis-4-{[4-(dimethylamino)-pyrimidin-2-yl]amino}cyclohexyl)methyl]urea;

N-(2-chloro-6-methylphenyl)-N'-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]urea;

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-N'-(2-ethyl-6-isopropylphenyl)urea;

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-N'-(2-isopropyl-6-methylphenyl)urea;

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-N'-(2-methyl-3-nitrophenyl)urea;

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-N'-(2-propylphenyl)urea;

N-(2-tert-butyl-6-methylphenyl)-N'-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]urea;

N-(2-tert-butylphenyl)-N'-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]urea;

N-(3-chloro-2-methylphenyl)-N'-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]urea;

N-(4-bromo-2,6-difluorophenyl)-N'-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]urea;

N-[4-chloro-2-(trifluoromethyl)phenyl]-N'-[(cis-4-{[4-(dimethylamino)-pyrimidin-2-yl]amino}cyclohexyl)methyl]urea;

 $N-[(cis-4-\{[4-(dimethylamino)pyrimidin-2-yl]amino\} cyclohexyl)methyl]-N'-(diphenylmethyl)urea; \\$

 $N-(4-bromo-2,6-dimethylphenyl)-N'-[(cis-4-\{[4-(dimethylamino)pyrimidin-2-yl]amino\}cyclohexyl)methyl]urea;$

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-N'-(3-methyl-5-phenylisoxazol-4-yl)urea;

N-(3,5-dichlorophenyl)-N'-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]-amino}cyclohexyl)methyl]urea;

N-(2,3-dichlorophenyl)-N'-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]-amino}cyclohexyl)methyl]urea;

N-(2,6-diisopropylphenyl)-N'-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]-amino}cyclohexyl)methyl]urea;

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-N'-(2,3-dimethyl-6-nitrophenyl)urea;

N-(2,6-dibromo-4-fluorophenyl)-N'-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]urea;

 $N-(2,6-dichlorophenyl)-N'-[(cis-4-\{[4-(dimethylamino)pyrimidin-2-yl]-amino\}cyclohexyl)methyl]urea; \\$

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-N'-(2-methoxy-5-methylphenyl)urea;

WO 2004/087669

N-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)methyl]-N'-(2-methyl-6-nitrophenyl)urea;

N-(3,4-difluorophenyl)-N'-[(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]-amino}cyclohexyl)methyl]urea;

 $N-(3,5-difluor ophenyl)-N'-[(cis-4-\{[4-(dimethylamino)pyrimidin-2-yl]-amino\}cyclohexyl)methyl]urea; and$

 $N-(3-chloro-4-fluorophenyl)-N'-[(cis-4-\{[4-(dimethylamino)pyrimidin-2-yl]amino\}cyclohexyl)methyl]urea;\\$

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

- 69. The compound according to claim 52 wherein R_1 is selected from the group consisting of:
 - (i) C_{1-5} alkyl, and

C₁₋₅ alkyl substituted by substituent(s) independently selected from the group consisting of:

- ·carbocyclic aryl,
- •carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen, and
 - ••C₁₋₅ alkoxy,
- (ii) carbocyclyl,
- (iii) carbocyclic aryl, and carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
 - •halogen,
 - °cyano,
 - enitro,
 - •C₁₋₅ alkyl,
 - •C₁₋₅ alkyl substituted by halogen,

1025

•C₁₋₅ alkoxy carbonyl,

∘C₁₋₅ alkoxy,

∘C₁₋₅ alkoxy substituted by halogen,

omono-C₁₋₅ alkylamino,

•di-C₁₋₅ alkylamino, and

ocarbocyclic aryl,

(iv) heterocyclyl, and

heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

•C₁₋₅ alkyl,

•C₁₋₅ alkoxy carbonyl, and

·carbocyclic aryl;

L is Formula (VII);

Y is $-C(S)NR_5$ -;

wherein carbocyclic aryl is phenyl or naphthyl;

carbocyclyl is bicyclo[2.2.1]heptyl;

heterocyclyl is 2,3-dihydro-benzo[1,4]dioxinyl, benzo[1,3]dioxolyl,

isoxazolyl, or thienyl; and

halogen is fluoro, chloro, bromo, or iodo;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

- 70. The compound according to claim 69 wherein R₂ is methylamino or dimethylamino; p is 0; R₃ and R₄ are hydrogen; A is a single bond; B is a single bond or -CH₂-; R₅ is hydrogen; or a pharmaceutically acceptable salt, hydrate, or solvate thereof.
- 71. The compound according to claim 70 wherein R₁ is selected from the group consisting of: carbocyclic aryl, and

WO 2004/087669

carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

ohalogen,

ocyano,

°C_{1.5} alkyl,

∘C₁₋₅ alkoxy,

emono-C₁₋₅ alkylamino, and

•di-C₁₋₅ alkylamino;

wherein carbocyclic aryl is phenyl or naphthyl; and

halogen is fluoro, chloro, bromo, or iodo;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

72. The compound according to claim 1 selected from the group consisting of:

N-(4-cyanophenyl)-N'-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}-cyclohexyl)thiourea;

 $N-(2,4-dimethoxyphenyl)-N'-(cis-4-\{[4-(dimethylamino)pyrimidin-2-yl]-amino\} cyclohexyl) thiourea; \\$

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-N'-(3,4,5-trimethoxyphenyl)thiourea;

N-(3,4-dimethoxyphenyl)-N'-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]-amino}cyclohexyl)thiourea;

N-[4-(dimethylamino)-1-naphthyl]-N'-(cis-4-{[4-(dimethylamino)-pyrimidin-2-yl]amino}cyclohexyl)thiourea;

 $N-(cis-4-\{[4-(dimethylamino)pyrimidin-2-yl]amino\} cyclohexyl)-N'-(2,4,6-tribromophenyl) thiourea;$

N-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)-N'-mesitylthiourea;

1027

 $N-(4-bromo-2,6-dimethylphenyl)-N'-(cis-4-\{[4-(dimethylamino)pyrimidin-2-yl]amino\}cyclohexyl) thiourea;$

N-(5-chloro-2,4-dimethoxyphenyl)-N'-(cis-4-{[4-(dimethylamino)-pyrimidin-2-yl]amino}cyclohexyl)thiourea;

N-(2,4-dibromo-6-fluorophenyl)-N'-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)thiourea; and

N-(2,4-dichloro-6-methylphenyl)-N'-(cis-4-{[4-(dimethylamino)pyrimidin-2-yl]amino}cyclohexyl)thiourea;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

- 73. The compound according to claim 52 wherein R_1 is selected from the group consisting of:
 - (i) C_{1-8} alkyl, and

C₁₋₈ alkyl substituted by substituent(s) independently selected from the group consisting of:

- ·halogen,
- •C₁₋₅ alkoxy,
- •C₁₋₅ alkoxy substituted by carbocyclic aryl,
- •carbocyclyl,
- •carbocyclic aryl,
- •carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen,
 - ••nitro, and
 - ••C₁₋₅ alkoxy,
- (ii) C₂₋₅ alkenyl,
- (iii) carbocyclyl,
- (iv) carbocyclic aryl, and

1028

carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

ohalogen,

°C₁₋₅ alkyl,

∘C₁₋₅ alkyl substituted by halogen, and

∘C₁₋₅ alkoxy;

L is Formula (VII);

Y is -C(O)O-;

wherein carbocyclic aryl is phenyl or naphthyl;

carbocyclyl is 9H-fluorenyl or menthyl; and

halogen is fluoro, chloro, bromo, or iodo;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

- 74. The compound according to claim 73 wherein R₂ is methylamino or dimethylamino; p is 0; R₃ and R₄ are hydrogen; A is a single bond; B is a single bond or -CH₂-: or a pharmaceutically acceptable salt, hydrate, or solvate thereof.
- 75. The compound according to claim 2 wherein Q is Formula (IV); p is 1 or 2;

 R_1 is selected from the group consisting of:

(i) C_{1-16} alkyl, and

C₁₋₁₆ alkyl substituted by substituent(s) independently selected from the group consisting of:

hydroxy,

°OXO,

ocarbocyclic aryloxy,

•carbocyclic aryloxy substituted by substituent(s) independently selected from the group consisting of:

··halogen,

1029

- ••C₁₋₅ alkyl,
- ∘∘C₁₋₅ alkyl substituted by halogen, and
- ∘∘C₁₋₅ alkoxy,
- oheterocyclyloxy,
- •heterocyclyloxy substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen,
 - ◦◦C₁₋₅ alkyl, and
 - ••C₁₋₅ alkyl substituted by halogen,
- •mono-carbocyclic arylamino,
- •mono-carbocyclic arylamino substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen,
 - ••C₁₋₅ alkoxy, and
 - ••C₁₋₅ alkyl,
- •carbocyclic arylsulfinyl,
- •carbocyclic arylsulfinyl substituted by substituent(s) independently selected from the group consisting of:
 - ··halogen,
 - ••C₁₋₅ alkyl, and
 - ••C₁₋₅ alkyl substituted by halogen,
- ·carbocyclic arylsulfonyl,
- •carbocyclic arylsulfonyl substituted by substituent(s) independently selected from the group consisting of:
 - ∘∘halogen,
 - ••C₁₋₅ alkyl, and
 - ••C₁₋₅ alkyl substituted by halogen,
- ·carbocyclic aryl,

1030

•carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

- ∘∘halogen,
- oonitro,
- ∘∘C₁₋₅ alkylcarbonylamino,
- °°C₃₋₆ cycloalkylcarbonylamino,
- ∞C₁₋₅ alkyl,
- ••C₁₋₅ alkyl substituted by halogen,
- ••C₁₋₅ alkoxy, and
- ••C₁₋₅ alkoxy substituted by halogen, and
- •heterocyclyl,
- (ii) C₃₋₁₂ cycloalkyl, and

C₃₋₁₂ cycloalkyl substituted by substituent(s) independently selected from the group consisting of:

- •carbocyclic aryl, and
- •carbocyclic aryl substituted by substitutent(s) independently selected from the group consisting of:
 - •• C₁₋₅ alkoxy,
 - ••halogen,
 - ••C₁₋₅ alkyl, and
 - ••C₁₋₅ alkyl substituted by halogen,
- (iii) carbocyclic aryl, andcarbocyclic aryl substituted by substituent(s) independently selected fromthe group consisting of:
 - ·halogen,
 - °cyano,
 - •nitro,
 - •C₁₋₁₀ alkyl,

1031

•C₁₋₁₀ alkyl substituted by substituent(s) independently selected from the group consisting of: oohalogen, and oohydroxy, °C₁₋₉ alkoxy, $\circ C_{1-9}$ alkoxy substituted by substituent(s) independently selected from the group consisting of: onhalogen, and ··carbocyclic aryl, carboxy, •C₁₋₅ alkoxycarbonyl, •di-C₁₋₅ alkylamino, •C₁₋₅ alkylcarbonylamino, •C₃₋₆ cycloalkylcarbonylamino, •C₁₋₅ alkylthio, •C₁₋₅ alkylsulfinyl, •C₁₋₅ alkylsulfonyl, ·carbocyclic aryl, heterocyclyl, and heterocyclyl substituted by substituent(s) independently selected from the group consisting of: ·halogen, •hydroxy, •amino, °C₁₋₅ alkyl, •C₁₋₅ alkyl substituted by halogen, •C₁₋₅ alkoxy, ·carbocyclic aryloxy,

(iv)

- •carbocyclic aryloxy substituted by substituent(s) independently selected from the group consisting of:
 - oohalogen,
 - ∞C₁₋₅ alkyl,
 - [∞]C₁₋₅ alkyl substituted by halogen, and
 - ∘∘C₁₋₅ alkoxy,
- •heterocyclyloxy,
- •heterocyclyloxy substituted by halogen,
- •heterocyclyl sulfonyl,
- heterocyclyl sulfonyl substituted by C₁₋₅ alkyl,
- •mono-carbocyclic arylamino,
- •mono-carbocyclic arylamino substituted by halogen,
- •C₁₋₅ alkylthio,
- •C₁₋₅ alkylsulfinyl,
- •carbocyclic arylsulfinyl,
- •carbocyclic arylsulfinyl substituted by halogen,
- •carbocyclic arylsulfonyl,
- •carbocyclic arylsulfonyl substituted by substituents(s) independently selected from the group consisting of:
 - ••halogen,
 - ••C₁₋₅ alkoxy,
 - ••C₁₋₅ alkyl, and
 - ••C₁₋₅ alkyl substituted by halogen,

 R_2 is selected from the group consisting of:

amino, C_{1-5} alkyl, C_{1-5} alkoxy, -N(R_{2a})(R_{2b}), wherein R_{2a} is hydrogen or C_{1-5} alkyl and R_{2b} is C_{1-5} alkyl or C_{3-6} cycloalkyl;

wherein carbocyclic aryl is phenyl or naphthyl;

1033

heterocyclyl is 3,4-dihydro-1*H*-isoquinolinyl, benzo[1,3]dioxolyl, furyl, isoxazolyl, oxazolyl, pyrazolyl, pyrazinyl, pyridyl, pyrimidyl, or thienyl; and halogen is fluoro, chloro, bromo, or iodo; or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

- 76. The compound according to claim 75 wherein R₁ is selected from the group consisting of:
 - (i) C_{1-16} alkyl, and

 C_{1-16} alkyl substituted by substituent(s) independently selected from the group consisting of:

- •oxo,
- •carbocyclic aryl,
- •carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen,
 - ••C₁₋₅ alkyl,
 - ••C₁₋₅ alkyl substituted by halogen, and
 - ••C₁₋₅ alkoxy, and
 - ••C₁₋₅ alkoxy substituted by halogen,
- (ii) heterocyclyl, and

heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

- ·carbocyclic arylsulfinyl, and
- •carbocyclic arylsulfinyl substituted by halogen,

L is Formula (VII);

Y is a single bond or -CH₂-;

 R_2 is -N(R_{2a})(R_{2b}), wherein R_{2a} is C_{1-5} alkyl and R_{2b} is C_{1-5} alkyl; carbocyclic aryl is phenyl;

heterocyclyl is pyrazinyl; and

1034

halogen is fluoro, chloro, or bromo; or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

- 77. The compound according to claim 76 wherein R_1 is selected from the group consisting of:
 - (i) C₁₋₁₆ alkyl, and

C₁₋₁₆ alkyl substituted by substituent(s) independently selected from the group consisting of:

- ecarbocyclic aryl,
- •carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen, and
 - •• C_{1-5} alkoxy,
- (ii) heterocyclyl, and

heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

- ·carbocyclic arylsulfinyl, and
- •carbocyclic arylsulfinyl substituted by halogen,

 R_2 is $-N(R_{2a})(R_{2b})$, wherein R_{2a} is C_{1-5} alkyl and R_{2b} is C_{1-5} alkyl;

carbocyclic aryl is phenyl;

heterocyclyl is pyrazinyl; and

halogen is fluoro or bromo;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

78. The compound according to claim 77 wherein R_1 is selected from the group consisting of:

heterocyclyl, and

heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

·carbocyclic arylsulfinyl, and

1035

•carbocyclic arylsulfinyl substituted by halogen,

 R_2 is $-N(R_{2a})(R_{2b})$, wherein R_{2a} is C_{1-5} alkyl and R_{2b} is C_{1-5} alkyl;

carbocyclic aryl is phenyl;

heterocyclyl is pyrazinyl; and

halogen is fluoro;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

- 79. The compound according to any one of claims 76 to 78 wherein p is 1 and T is C₁₋₅ alkyl;
 R₃ and R₄ are both hydrogen; A and B are both single bonds:
 or a pharmaceutically acceptable salt, hydrate, or solvate thereof.
- 80. The compound according to claim 1 selected from the group consisting of:

N²-{cis-4-[(3,5-dimethoxybenzyl)amino]cyclohexyl}-N⁴,N⁴,5-

trimethylpyrimidine-2,4-diamine;

 $N^2-\{cis-4-[(3-bromobenzyl)amino]cyclohexyl\}-N^4,N^4,5,6-tetramethylpyrimidine-2,4-diamine;$

N²-{cis-4-[(3,4-difluorobenzyl)amino]cyclohexyl}-N⁴,N⁴,5,6-

tetramethylpyrimidine-2,4-diamine; and

N²-[cis-4-({6-[(3,4-difluorophenyl)sulfinyl]pyrazin-2-yl}amino)cyclohexyl]-

N⁴,N⁴,5-trimethylpyrimidine-2,4-diamine;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

81. The compound according to claim 1 is:

N²-[cis-4-({6-[(3,4-difluorophenyl)sulfinyl]pyrazin-2-yl}amino)cyclohexyl]-

N⁴,N⁴,5-trimethylpyrimidine-2,4-diamine;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

82. The compound according to claim 75 wherein R_1 is selected from the group consisting of:

1036

(i) C_{1-16} alkyl, and

 C_{1-16} alkyl substituted by substituent(s) independently selected from the group consisting of:

- ohydroxy,
- °carbocyclic aryloxy,
- °carbocyclic aryloxy substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen,
 - ••C₁₋₅ alkyl,
 - ••C₁₋₅ alkyl substituted by halogen, and
 - •• C_{1-5} alkoxy,
- heterocyclyloxy,
- •heterocyclyloxy substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen,
 - ••C₁₋₅ alkyl, and
 - ••C₁₋₅ alkyl substituted by halogen,
- •mono-carbocyclic arylamino,
- mono-carbocyclic arylamino substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen,
 - ••C₁₋₅ alkoxy, and
 - ••C₁₋₅ alkyl,
- ·carbocyclic arylsulfinyl,
- ocarbocyclic arylsulfinyl substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen,
 - ••C₁₋₅ alkyl, and

1037

- ••C₁₋₅ alkyl substituted by halogen,
- *carbocyclic arylsulfonyl,
- ocarbocyclic arylsulfonyl substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen,
 - ◦ C₁₋₅ alkyl, and
 - **C₁₋₅ alkyl substituted by halogen,
- ocarbocyclic aryl,
- •carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen,
 - ••C₁₋₅ alkyl,
 - ••C₁₋₅ alkyl substituted by halogen, and
 - ••C₁₋₅ alkoxy,
- (ii) C₃₋₁₂ cycloalkyl, and

C₃₋₁₂ cycloalkyl substituted by substituent(s) independently selected from the group consisting of:

- •carbocyclic aryl, and
- •carbocyclic aryl substituted by substitutent(s) independently selected from the group consisting of:
 - •• C₁₋₅ alkoxy,
 - ••halogen,
 - ••C₁₋₅ alkyl, and
 - [∞]C₁₋₅ alkyl substituted by halogen,
- (iii) carbocyclic aryl, andcarbocyclic aryl substituted by substituent(s) independently selected fromthe group consisting of:
 - ·halogen,

1038

•cyano, onitro, °C₁₋₁₀ alkyl, ${}^{\circ}C_{1\text{--}10}$ alkyl substituted by substituent(s) independently selected from the group consisting of: oohalogen, and ••hydroxy, ∘C₁₋₉ alkoxy, •C₁₋₉ alkoxy substituted by halogen, ·carboxy, •C₁₋₅ alkoxycarbonyl, •di-C₁₋₅ alkylamino, •C₁₋₅ alkylcarbonylamino, •C₃₋₆ cycloalkylcarbonylamino, ${}^{ullet}C_{1-5}$ alkylsulfonyl, and ·carbocyclic aryl, heterocyclyl, and heterocyclyl substituted by substituent(s) independently selected from the group consisting of: ·halogen, •hydroxy, ·amino, •C₁₋₅ alkyl, ∘C₁₋₅ alkyl substituted by halogen, °C₁₋₅ alkoxy, ·carbocyclic aryloxy, •carbocyclic aryloxy substituted by substituent(s) independently selected from the group consisting of:

(iv)

1039

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••halogen,
                     <sup>oo</sup>C<sub>1-5</sub> alkyl,
                     °°C<sub>1-5</sub> alkyl substituted by halogen, and
                     ∘∘C<sub>1-5</sub> alkoxy,
           •heterocyclyloxy,
           heterocyclyloxy substituted by halogen,
           •heterocyclyl sulfonyl,
           • heterocyclyl sulfonyl substituted by C<sub>1-5</sub> alkyl,
           ·mono-carbocyclic arylamino,

    mono-carbocyclic arylamino substituted by halogen,

           •C<sub>1-5</sub> alkylthio,
           •C<sub>1-5</sub> alkylsulfinyl,
          •carbocyclic arylsulfonyl,
          •carbocyclic arylsulfonyl substituted by substituents(s) independently
          selected from the group consisting of:
                     ••halogen,
                    ••C<sub>1-5</sub> alkoxy,
                     ••C<sub>1-5</sub> alkyl, and
                     ••C<sub>1-5</sub> alkyl substituted by halogen,
L is Formula (VII);
Y \text{ is } -C(O)-;
R<sub>2</sub> is selected from the group consisting of:
amino, C<sub>1-5</sub> alkyl, C<sub>1-5</sub> alkoxy, -N(R<sub>2a</sub>)(R<sub>2b</sub>), wherein R<sub>2a</sub> is hydrogen or C<sub>1-5</sub> alkyl
and R_{2b} is C_{1-5} alkyl or C_{3-6} cycloalkyl;
          wherein carbocyclic aryl is phenyl;
          heterocyclyl is benzo[1,3]dioxolyl, furyl, isoxazolyl, oxazolyl, pyrazolyl,
pyrazinyl, pyridyl, pyrimidyl, or thienyl; and
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halogen is fluoro, chloro, bromo, or iodo;

WO 2004/087669

PCT/JP2004/004624

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

1040

- 83. The compound according to claim 82 wherein R₁ is selected from the group consisting of:
 - (i) C_{1-16} alkyl, and

 C_{1-16} alkyl substituted by substituent(s) independently selected from the group consisting of:

- •hydroxy,
- ocarbocyclic aryloxy,
- •carbocyclic aryloxy substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen,
 - ••C₁₋₅ alkyl,
 - ••C₁₋₅ alkyl substituted by halogen, and
 - ••C₁₋₅ alkoxy,
- heterocyclyloxy,
- •heterocyclyloxy substituted by halogen,
- •mono-carbocyclic arylamino,
- •mono-carbocyclic arylamino substituted by substituent(s) independently selected from the group consisting of:
 - · · halogen,
 - ••C₁₋₅ alkoxy, and
 - ••C₁₋₅ alkyl,
- •carbocyclic arylsulfinyl,
- *carbocyclic arylsulfinyl substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen,
 - ••C₁₋₅ alkyl, and
 - ••C₁₋₅ alkyl substituted by halogen,

1041

•carbocyclic arylsulfonyl,

°carbocyclic arylsulfonyl substituted by substituent(s) independently selected from the group consisting of:

∘∘C₁₋₅ alkyl, and

••C₁₋₅ alkyl substituted by halogen,

ocarbocyclic aryl,

•carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

- ••halogen,
- ••C₁₋₅ alkyl, and
- ••C₁₋₅ alkyl substituted by halogen,
- (ii) C₃₋₁₂ cycloalkyl, and

C₃₋₁₂ cycloalkyl substituted by substituent(s) independently selected from the group consisting of:

- •carbocyclic aryl, and
- •carbocyclic aryl substituted by substitutent(s) independently selected from the group consisting of:
 - •• C₁₋₅ alkoxy,
 - ••halogen,
 - ••C₁₋₅ alkyl, and
 - ••C₁₋₅ alkyl substituted by halogen,
- (iii) carbocyclic aryl, and

carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

- •halogen,
- •cyano,
- •nitro,
- \cdot C₁₋₁₀ alkyl,

1042

- •C₁₋₁₀ alkyl substituted by substituent(s) independently selected from the group consisting of:
 - ∘∘halogen, and
 - oohydroxy,
- °C₁₋₉ alkoxy,
- °C₁₋₉ alkoxy substituted by halogen,
- ·carboxy,
- °C₁₋₅ alkoxycarbonyl, and
- •C₁₋₅ alkylsulfonyl,
- (iv) heterocyclyl, and

heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

- •halogen,
- •C₁₋₅ alkyl,
- •C₁₋₅ alkyl substituted by halogen,
- •C₁₋₅ alkoxy,
- •carbocyclic aryloxy,
- •carbocyclic aryloxy substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen,
 - ••C₁₋₅ alkyl,
 - ••C₁₋₅ alkyl substituted by halogen, and
 - ••C₁₋₅ alkoxy,
- •heterocyclyloxy,
- oheterocyclyloxy substituted by halogen,
- •heterocyclyl sulfonyl,
- heterocyclyl sulfonyl substituted by C₁₋₅ alkyl,
- •mono-carbocyclic arylamino,

1043

•mono-carbocyclic arylamino substituted by halogen,

∘C₁₋₅ alkylthio,

ocarbocyclic arylsulfonyl,

•carbocyclic arylsulfonyl substituted by substituents(s) independently selected from the group consisting of:

oohalogen,

∞C1-5 alkyl, and

••C₁₋₅ alkyl substituted by halogen,

R₂ is selected from the group consisting of:

 C_{1-5} alkoxy, $-N(R_{2a})(R_{2b})$, wherein R_{2a} is hydrogen or C_{1-5} alkyl and R_{2b} is C_{1-5} alkyl;

wherein carbocyclic aryl is phenyl;

heterocyclyl is benzo[1,3]dioxolyl, furyl, isoxazolyl, oxazolyl, pyrazolyl, pyridyl, or thienyl; and

halogen is fluoro, chloro, bromo, or iodo; or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

- 84. The compound according to claim 83 wherein R_1 is selected from the group consisting of:
 - (i) C_{1-16} alkyl, and

C₁₋₁₆ alkyl substituted by substituent(s) independently selected from the group consisting of:

- •hydroxy,
- carbocyclic aryloxy,
- •carbocyclic aryloxy substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen,
 - •• C_{1-5} alkyl,
 - ••C₁₋₅ alkyl substituted by halogen, and

1044

- ••C₁₋₅ alkoxy,
- •heterocyclyloxy,
- •heterocyclyloxy substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen,
 - ∘∘C₁₋₅ alkyl, and
 - ••C₁₋₅ alkyl substituted by halogen,
- omono-carbocyclic arylamino,
- •mono-carbocyclic arylamino substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen,
 - ••C₁₋₅ alkoxy, and
 - •• C_{1-5} alkyl,
- ·carbocyclic arylsulfinyl,
- •carbocyclic arylsulfinyl substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen,
 - ••C₁₋₅ alkyl, and
 - ••C₁₋₅ alkyl substituted by halogen,
- -carbocyclic aryl,
 - •carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen,
 - ${\circ}{\circ}C_{1-5}$ alkyl, and
 - ∘∘C₁₋₅ alkyl substituted by halogen,
- (ii) C₃₋₁₂ cycloalkyl, and
 - C₃₋₁₂ cycloalkyl substituted by substituent(s) independently selected from the group consisting of:

1045

•carbocyclic aryl, and

•carbocyclic aryl substituted by substitutent(s) independently selected from the group consisting of:

∘•C₁₋₅ alkoxy,

••halogen,

∘∘C₁₋₅ alkyl, and

••C₁₋₅ alkyl substituted by halogen,

(iii) carbocyclic aryl, and

carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

- •halogen,
- •cyano,
- •nitro,
- \cdot C₁₋₁₀ alkyl,
- •C₁₋₁₀ alkyl substituted by halogen,
- •C₁₋₉ alkoxy, and
- •C₁₋₉ alkoxy substituted by halogen,
- (iv) heterocyclyl, and

heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

- ·halogen,
- •C₁₋₅ alkyl,
- •C₁₋₅ alkyl substituted by halogen,
- ∘C₁₋₅ alkoxy,
- ocarbocyclic aryloxy,
- •carbocyclic aryloxy substituted by substituent(s) independently selected from the group consisting of:

··halogen,

1046

••C₁₋₅ alkyl,

∘∘C₁₋₅ alkyl substituted by halogen, and

∘∘C₁₋₅ alkoxy,

°C₁₋₅ alkylthio,

ecarbocyclic arylsulfonyl,

ocarbocyclic arylsulfonyl substituted by halogen,

R₂ is selected from the group consisting of:

-N(R_{2a})(R_{2b}), wherein R_{2a} is hydrogen or C_{1-5} alkyl and R_{2b} is C_{1-5} alkyl;

wherein carbocyclic aryl is phenyl;

heterocyclyl is benzo[1,3]dioxolyl, furyl, pyrazolyl, pyridyl, or thienyl;

and

halogen is fluoro, chloro, bromo, or iodo;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

- 85. The compound according to any one of claims 82 to 84 wherein p is 1 and T is C₁₋₅ alkyl;

 R₃ and R₄ are both hydrogen; A is a single bond and B is a single bond or -CH₂-;

 or a pharmaceutically acceptable salt, hydrate, or solvate thereof.
- 86. The compound according to claim 1 selected from the group consisting of:

N-[(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-

yl]amino}cyclohexyl)methyl]-3,5-bis(trifluoromethyl)benzamide;

N-[(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-

yl]amino}cyclohexyl)methyl]-3,5-bis(trifluoromethyl)benzamide;

N-[(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-

yl]amino}cyclohexyl)methyl]-3,4-difluorobenzamide;

3,5-dichloro-N-[(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-

yl]amino}cyclohexyl)methyl]benzamide;

N-[(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)methyl]-3,4-difluorobenzamide;

N-[(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)methyl]-3,5-dimethoxybenzamide;

N-[(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-

yl]amino}cyclohexyl)methyl]-3-fluoro-4-methylbenzamide;

N-[(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-

yl]amino}cyclohexyl)methyl]-3-(trifluoromethyl)benzamide;

.N-[(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-

yl]amino}cyclohexyl)methyl]-3-(trifluoromethoxy)benzamide;

4-bromo-N-[(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)methyl]-3-methylbenzamide;

N-[(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)methyl]-3-fluoro-4-(trifluoromethyl)benzamide;

3,5-dichloro-N-[(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)methyl]benzamide;

3,4-dichloro-N-[(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)methyl]benzamide;

4-chloro-N-[(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)methyl]benzamide;

4-chloro-N-[(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)methyl]benzamide;

N-[cis-4-({[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}methyl)cyclohexyl]-3,5-dimethoxybenzamide;

4-bromo-N-[cis-4-({[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}methyl)cyclohexyl]benzamide;

4-bromo-N-[cis-4-({[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}methyl)cyclohexyl]-3-methylbenzamide;

1048

3,5-dichloro-N-[cis-4-({[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}methyl)cyclohexyl]benzamide;

3,4-dichloro-N-[cis-4-({[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}methyl)cyclohexyl]benzamide;

N-[cis-4-({[4-(dimethylamino)-5-methylpyrimidin-2-

yl]amino}methyl)cyclohexyl]-3,5-bis(trifluoromethyl)benzamide;

N-[cis-4-({[4-(dimethylamino)-6-methylpyrimidin-2-

yl]amino}methyl)cyclohexyl]-3,4-difluorobenzamide;

4-bromo-N-[cis-4-({[4-(dimethylamino)-6-methylpyrimidin-2-

yl]amino}methyl)cyclohexyl]benzamide;

4-bromo-N-[cis-4-({[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}methyl)cyclohexyl]-3-methylbenzamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2-(2-fluorophenoxy)nicotinamide;

N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-3,4,5-trimethoxybenzamide;

N-(4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-3-nitrobenzamide;

N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-2,2-diphenylacetamide;

N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-4-methylbenzamide;

4-chloro-N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)benzamide;

3-chloro-N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)benzamide;

N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-3,4-difluorobenzamide;

N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-3-methylbenzamide;

N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-3-methoxybenzamide;

N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-4-fluorobenzamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-3-methylbenzamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-3-methoxybenzamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-4-methylbenzamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-3,4-difluorobenzamide;

3-chloro-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)benzamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2-(3-methylphenoxy)nicotinamide;

2-(4-bromophenoxy)-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)nicotinamide;

2-(4-chlorophenoxy)-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)nicotinamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2-(4-fluorophenoxy)nicotinamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2-(3-fluorophenoxy)nicotinamide;

2-(2-bromophenoxy)-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)nicotinamide;

- N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2-(3-methoxyphenoxy)nicotinamide;
- N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2-(4-methoxyphenoxy)nicotinamide;
- N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2-(4-iodophenoxy)nicotinamide;
- 2-(3,4-dichlorophenoxy)-N-(cis-4-{[5-methyl-4-(methylamino)pyrimidin-2-yl]amino}cyclohexyl)acetamide;
- 2-(2,3-dichlorophenoxy)-N-(cis-4-{[5-methyl-4-(methylamino)pyrimidin-2-yl]amino}cyclohexyl)acetamide;
- 2-[(3,4-difluorophenyl)sulfonyl]-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)nicotinamide;
- N-(cis-4-{[4-(dimethylamino)-5-ethylpyrimidin-2-yl]amino}cyclohexyl)-3,4-difluorobenzamide;
- N-[cis-4-({4-[ethyl(methyl)amino]-5-methylpyrimidin-2-yl}amino)cyclohexyl]-3,4-difluorobenzamide;
- N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-3,5-dimethoxybenzamide;
- N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2-(2-methoxyphenoxy)nicotinamide;
- 2-(2-chlorophenoxy)-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)nicotinamide;
- 2-(3-chlorophenoxy)-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)nicotinamide;
- 2-(3-bromophenoxy)-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)nicotinamide;
- N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2-[3-(trifluoromethyl)phenoxy]nicotinamide;

- N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2-(3-fluorophenoxy)acetamide;
- N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2-(3-methoxyphenoxy)acetamide;
- N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2-[3-(trifluoromethyl)phenoxy]acetamide;
- 2-(3-chlorophenoxy)-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)acetamide;
- 2-[(5-chloropyridin-3-yl)oxy]-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)acetamide;
- N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)-3,4-difluorobenzamide;
- 2-(3,4-difluorophenyl)-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2-hydroxyacetamide;
- N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2-hydroxy-2-(4-methoxyphenyl)acetamide;
- 2-(2,3-difluorophenyl)-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2-hydroxyacetamide;
- N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2-hydroxy-2-[3-(trifluoromethyl)phenyl]acetamide;
- N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2-{[2-(trifluoromethyl)phenyl]sulfinyl}acetamide;
- 2-[(2-chlorophenyl)sulfinyl]-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)acetamide;
- 2-[(3-bromophenyl)sulfinyl]-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)acetamide;
- 2-[(3,4-difluorophenyl)sulfinyl]-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)acetamide;

1052

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-3-(trifluoromethyl)benzamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-3-fluorobenzamide;

3-bromo-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)benzamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-4-(trifluoromethoxy)benzamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-4-fluorobenzamide;

3,4-dichloro-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)benzamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-3,5-bis(trifluoromethyl)benzamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-3,5-dimethoxybenzamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2,4-difluorobenzamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2,5-difluorobenzamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2,3,4-trifluorobenzamide;

4-chloro-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)benzamide;

3-cyano-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)benzamide;

4-cyano-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)benzamide;

2-[(3,4-dichlorophenyl)sulfinyl]-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)acetamide;

 $N-(cis-4-\{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino\} cyclohexyl)-2-\{[3-(trifluoromethyl)phenyl]sulfinyl\} acetamide;$

 $N-(cis-4-\{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino\} cyclohexyl)-2-\{[3-(trifluoromethyl)phenyl]sulfonyl\} acetamide;$

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2-(isopropylthio)nicotinamide;

2-(tert-butylthio)-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)nicotinamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2-(propylthio)nicotinamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-3-(methylsulfonyl)benzamide;

 $N-(cis-4-\{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino\} cyclohexyl)-3-fluorobenzamide;$

N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-3-(trifluoromethyl)benzamide;

3-cyano-N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)benzamide;

4-cyano-N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)benzamide;

N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)benzamide;

N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)-3-(trifluoromethyl)benzamide;

3-cyano-N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)benzamide;

N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)-3-methylbenzamide;

3-chloro-N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)benzamide;

3-bromo-N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)benzamide;

N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)-3,5-dimethoxybenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)-3,5-bis(trifluoromethyl)benzamide;

3,4-dichloro-N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)benzamide;

N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)-4-(trifluoromethoxy)benzamide;

4-cyano-N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)benzamide;

N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)-4-methylbenzamide;

 $N-(cis-4-\{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino\}\ cyclohexyl)-4-fluorobenzamide;$

4-chloro-N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)benzamide;

N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)-2-methoxybenzamide;

4-bromo-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)benzamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-4-(trifluoromethyl)benzamide;

N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)-3-methoxybenzamide;

5-bromo-N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)-2-furamide;

N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)-5-methylisoxazole-3-carboxamide;

2-(3,5-difluorophenyl)-N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)-2-hydroxyacetamide;

N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)-2-methyl-1,3-oxazole-4-carboxamide;

N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)-2,6-dimethoxynicotinamide;

4-bromo-N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)benzamide;

N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)-4-(trifluoromethyl)benzamide;

4-bromo-N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)-3-methylbenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)-3-fluoro-4-methylbenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)-4-fluoro-3-methylbenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)-3-ethylbenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)-3-(trifluoromethoxy)benzamide;

5-bromo-N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)nicotinamide;

 $N-(cis-4-\{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino\}\ cyclohexyl)-5-methylthiophene-2-carboxamide$

N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)-6-(trifluoromethyl)nicotinamide;

N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)-3,5-diethoxybenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)-3-ethoxybenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)-3-isopropoxybenzamide;

3,5-dichloro-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)benzamide;

4-bromo-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-3-methylbenzamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-4-ethoxybenzamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-4-fluoro-3-methylbenzamide;

 $N-(cis-4-\{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino\} cyclohexyl)-3-fluoro-4-methylbenzamide;$

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-3-ethylbenzamide;

N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-3,5-bis(trifluoromethyl)benzamide;

N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-3-fluoro-4-(trifluoromethyl)benzamide;

N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-3-fluoro-5-(trifluoromethyl)benzamide;

1057

3-chloro-N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-4-fluorobenzamide;

N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-4-fluoro-3-methylbenzamide;

N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-3-fluoro-4-methylbenzamide;

3,5-dichloro-N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)benzamide;

N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-3-(trifluoromethoxy)benzamide;

N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-3,5-difluorobenzamide;

4-bromo-N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-3-methylbenzamide;

N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-3-ethylbenzamide;

N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-4-(trifluoromethyl)benzamide;

4-bromo-N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)benzamide;

N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-4-ethylbenzamide;

N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-3,5-diethoxybenzamide;

N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-3-ethoxybenzamide;

N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-3-isopropoxybenzamide;

5-bromo-N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)nicotinamide;

5-bromo-N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-2-furamide;

5-chloro-N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-2-furamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-3-fluoro-5-(trifluoromethyl)benzamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2,2-difluoro-1,3-benzodioxole-5-carboxamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-3-ethoxybenzamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-3-isopropoxybenzamide;

5-bromo-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2-furamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-3,5-diethoxybenzamide;

4-chloro-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-3-(trifluoromethyl)benzamide;

5-bromo-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)nicotinamide;

3,4-dichloro-N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)benzamide;

3-chloro-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-4-(trifluoromethoxy)benzamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-4-methoxy-3-(trifluoromethyl)benzamide;

- N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-4-methoxy-3-(trifluoromethyl)benzamide;
- 2-(4-chlorophenyl)-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2-methylpropanamide;
- 1-(4-chlorophenyl)-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)cyclopropanecarboxamide;
- 1-(4-chlorophenyl)-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)cyclobutanecarboxamide;
- 1-(2,4-dichlorophenyl)-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)cyclopropanecarboxamide;
- 2-(4-chlorophenyl)-N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-2-methylpropanamide;
- 1-(4-chlorophenyl)-N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)cyclopropanecarboxamide;
- 1-(4-chlorophenyl)-N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)cyclobutanecarboxamide;
- 1-(2,4-dichlorophenyl)-N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)cyclopropanecarboxamide;
- 2-[3,5-bis(trifluoromethyl)phenyl]-N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)acetamide;
- N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-4-[2,2,2-trifluoro-1-hydroxy-1-(trifluoromethyl)ethyl]benzamide;
- 2-(4-chlorophenyl)-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)acetamide;
- N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-1-(4-methylphenyl)cyclopropanecarboxamide;
- 2-(4-chlorophenyl)-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)propanamide;

- 2-(4-chlorophenyl)-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2-hydroxyacetamide;
- N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-1-(4-methoxyphenyl)cyclopropanecarboxamide;
- N²-(3-chlorophenyl)-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N²-methylglycinamide;
- $N^2-(3,4-dichlorophenyl)-N-(cis-4-\{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino\}cyclohexyl)-N^2-methylglycinamide;$
- $N-(cis-4-\{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino\}$ cyclohexyl)- N^2 -methyl- N^2 -(3-methylphenyl)glycinamide;
- $N-(cis-4-\{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino\} cyclohexyl)-N^2-(3-fluorophenyl)-N^2-methylglycinamide;$
- N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N²-(4-fluorophenyl)-N²-methylglycinamide;
- N²-(4-chlorophenyl)-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N²-methylglycinamide;
- N²-(3,4-difluorophenyl)-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N²-methylglycinamide;
- N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N²-(3-methoxyphenyl)-N²-methylglycinamide;
- $N-(cis-4-\{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino\}$ cyclohexyl)- $N^2-(4-methoxyphenyl)-N^2-methylglycinamide;$
- 2-[(3,4-difluorophenyl)amino]-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)nicotinamide;
- 2-(3,4-dichlorophenoxy)-N-(cis-4-{[4-methyl-6-(methylamino)pyrimidin-2-yl]amino}cyclohexyl)acetamide;
- trans-2-(4-chlorophenyl)-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)cyclopropanecarboxamide;

- trans-2-(3-chlorophenyl)-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)cyclopropanecarboxamide;
- trans-2-(3,4-difluorophenyl)-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)cyclopropanecarboxamide;
- trans-2-(3,4-dichlorophenyl)-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)cyclopropanecarboxamide;
- trans-2-[3,5-bis(trifluoromethyl)phenyl]-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)cyclopropanecarboxamide;
- 2-[(4-chlorophenyl)sulfonyl]-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)nicotinamide;
- 2-[(3-chlorophenyl)sulfonyl]-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)nicotinamide;
- 2-[(4-bromophenyl)sulfonyl]-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)nicotinamide;
- N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2-{[4-(trifluoromethyl)phenyl]sulfonyl}nicotinamide;
- N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2-{[1-methyl-3-(trifluoromethyl)-1H-pyrazol-5-yl]oxy}acetamide;
- 2-[(2-chlorophenyl)sulfonyl]-N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)nicotinamide;
- 2-[(3-chlorophenyl)sulfonyl]-N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)nicotinamide;
- 3,4-dichloro-N-{cis-4-[(4-methoxy-5-methylpyrimidin-2-yl)amino]cyclohexyl}benzamide;
- N-[cis-4-(4-dimethylamino-5-methyl-pyrimidin-2-ylamino)-cyclohexyl]-2-phenoxy-nicotinamide;
- N-[cis-4-(4-dimethylamino-6-methyl-pyrimidin-2-ylamino)-cyclohexyl]-2-phenoxy-nicotinamide;

3-chloro-N-[cis-4-(4-dimethylamino-5-methyl-pyrimidin-2-ylamino)-cyclohexyl]-4-fluoro-benzamide;

4-chloro-N-[cis-4-(4-dimethylamino-6-methyl-pyrimidin-2-ylamino)-cyclohexyl]-3-fluoro-benzamide;

3-chloro-N-[cis-4-(4-dimethylamino-6-methyl-pyrimidin-2-ylamino)-cyclohexyl]-5-fluoro-benzamide;

N-[cis-4-(4-dimethylamino-6-methyl-pyrimidin-2-ylamino)-cyclohexyl]-3,4,5-trifluoro-benzamide:

3-chloro-4-fluoro-N-[cis-4-(5-methyl-4-methylamino-pyrimidin-2-ylamino)-cyclohexyl]-benzamide;

4-chloro-N-[cis-4-(4-dimethylamino-5-methyl-pyrimidin-2-ylamino)-cyclohexyl]-3-fluoro-benzamide;

3-chloro-N-[cis-4-(4-dimethylamino-5-methyl-pyrimidin-2-ylamino)-cyclohexyl]-5-fluoro-benzamide;

N-[cis-4-(4-dimethylamino-5-methyl-pyrimidin-2-ylamino)-cyclohexyl]-3,4,5-trifluoro-benzamide;

N-[cis-4-(4-dimethylamino-5-methyl-pyrimidin-2-ylamino)-cyclohexyl]-3,5-difluoro-benzamide; and

2-(3,4-difluoro-phenyl)-N-[cis-4-(4-dimethylamino-5-methyl-pyrimidin-2-ylamino)-cyclohexyl]-acetamide;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

87. The compound according to claim 1 selected from the group consisting of:

N-[(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-

yllamino cyclohexyl) methyll-3,5-bis(trifluoromethyl) benzamide;

N-[(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-

yllamino cyclohexyl) methyll-3,5-dimethoxybenzamide;

1063

N-[(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-

yl]amino}cyclohexyl)methyl]-3-(trifluoromethyl)benzamide;

 $\hbox{$4$-bromo-N-[(cis-4-\{[4-(dimethylamino)-5-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-methylpyrimidin-2-me$

yl]amino}cyclohexyl)methyl]-3-methylbenzamide;

3,5-dichloro-N-[(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)methyl]benzamide;

3,4-dichloro-N-[(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)methyl]benzamide;

3,5-dichloro-N-[cis-4-({[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}methyl)cyclohexyl]benzamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2-(2-fluorophenoxy)nicotinamide;

N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-3,4,5-trimethoxybenzamide;

N-(4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-3-nitrobenzamide;

N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-2,2-diphenylacetamide;

4-chloro-N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)benzamide;

3-chloro-N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)benzamide;

N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-3,4-difluorobenzamide;

N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-3-methylbenzamide;

 $N-(cis-4-\{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino\} cyclohexyl)-3-methoxybenzamide; \\$

 $N-(cis-4-\{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino\} cyclohexyl)-4-fluorobenzamide;$

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-3-methylbenzamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-3-methoxybenzamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-4-methylbenzamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-3,4-difluorobenzamide;

3-chloro-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)benzamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2-(3-methylphenoxy)nicotinamide;

2-(4-bromophenoxy)-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)nicotinamide;

2-(4-chlorophenoxy)-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)nicotinamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2-(4-fluorophenoxy)nicotinamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2-(3-fluorophenoxy)nicotinamide;

2-(2-bromophenoxy)-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)nicotinamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2-(3-methoxyphenoxy)nicotinamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2-(4-methoxyphenoxy)nicotinamide;

- N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2-(4-iodophenoxy)nicotinamide;
- 2-(3,4-dichlorophenoxy)-N-(cis-4-{[5-methyl-4-(methylamino)pyrimidin-2-yl]amino}cyclohexyl)acetamide;
- 2-(2,3-dichlorophenoxy)-N-(cis-4-{[5-methyl-4-(methylamino)pyrimidin-2-yl]amino}cyclohexyl)acetamide;
- 2-[(3,4-difluorophenyl)sulfonyl]-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)nicotinamide;
- N-[cis-4-({4-[ethyl(methyl)amino]-5-methylpyrimidin-2-yl}amino)cyclohexyl]-3,4-difluorobenzamide;
- N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-3,5-dimethoxybenzamide;
- N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2-(2-methoxyphenoxy)nicotinamide;
- 2-(2-chlorophenoxy)-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)nicotinamide;
- 2-(3-chlorophenoxy)-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)nicotinamide;
- 2-(3-bromophenoxy)-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)nicotinamide;
- N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2-[3-(trifluoromethyl)phenoxy]nicotinamide;
- N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2-(3-fluorophenoxy)acetamide;
- N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2-(3-methoxyphenoxy)acetamide;
- N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2-[3-(trifluoromethyl)phenoxy]acetamide;

1066

2-(3-chlorophenoxy)-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)acetamide;

2-[(5-chloropyridin-3-yl)oxy]-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)acetamide;

N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)-3,4-difluorobenzamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2-hydroxy-2-(4-methoxyphenyl)acetamide;

2-(2,3-difluorophenyl)-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2-hydroxyacetamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2-hydroxy-2-[3-(trifluoromethyl)phenyl]acetamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2-{[2-(trifluoromethyl)phenyl]sulfinyl}acetamide;

2-[(2-chlorophenyl)sulfinyl]-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)acetamide;

2-[(3-bromophenyl)sulfinyl]-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)acetamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-3-(trifluoromethyl)benzamide;

 $N-(cis-4-\{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino\} cyclohexyl)-3-fluorobenzamide;$

3-bromo-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)benzamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-4-(trifluoromethoxy)benzamide;

 $N-(cis-4-\{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino\} cyclohexyl)-4-fluorobenzamide;$

1067

3,4-dichloro-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)benzamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-3,5-bis(trifluoromethyl)benzamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-3,5-dimethoxybenzamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2,4-difluorobenzamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2,5-difluorobenzamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2,3,4-trifluorobenzamide;

4-chloro-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)benzamide;

3-cyano-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)benzamide;

4-cyano-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)benzamide;

 $N-(cis-4-\{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino\} cyclohexyl)-2-\\ (isopropylthio)nicotinamide;$

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2-(propylthio)nicotinamide;

N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-3-(trifluoromethyl)benzamide;

3-cyano-N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)benzamide;

4-cyano-N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)benzamide;

 $N-(cis-4-\{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino\} cyclohexyl)-3-\\ (trifluoromethyl) benzamide;$

3-cyano-N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)benzamide;

N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)-3-methylbenzamide;

3-chloro-N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)benzamide;

3-bromo-N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)benzamide;

N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)-3,5-dimethoxybenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)-3,5-bis(trifluoromethyl)benzamide;

3,4-dichloro-N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)benzamide;

4-cyano-N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)benzamide;

N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)-4-methylbenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)-4-fluorobenzamide;

4-chloro-N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)benzamide;

4-bromo-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)benzamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-4-(trifluoromethyl)benzamide;

N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)-3-methoxybenzamide;

5-bromo-N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)-2-furamide;

 $N-(cis-4-\{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino\}\ cyclohexyl)-2,6-dimethoxynicotinamide;$

4-bromo-N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)benzamide;

N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)-4-(trifluoromethyl)benzamide;

4-bromo-N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)-3-methylbenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)-3-fluoro-4-methylbenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)-4-fluoro-3-methylbenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)-3-(trifluoromethoxy)benzamide;

5-bromo-N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)nicotinamide;

N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)-5-methylthiophene-2-carboxamide;

N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)-3,5-diethoxybenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)-3-ethoxybenzamide;

N-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)-3-isopropoxybenzamide;

1070

3,5-dichloro-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)benzamide;

4-bromo-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-3-methylbenzamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-4-fluoro-3-methylbenzamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-3-fluoro-4-methylbenzamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-3-ethylbenzamide;

N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-3,5-bis(trifluoromethyl)benzamide;

N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-3-fluoro-4-(trifluoromethyl)benzamide;

 $N-(cis-4-\{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino\} cyclohexyl)-3-fluoro-5-(trifluoromethyl) benzamide;$

3-chloro-N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-4-fluorobenzamide;

N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-4-fluoro-3-methylbenzamide;

 $N-(cis-4-\{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino\}\ cyclohexyl)-3-fluoro-4-methylbenzamide;$

3,5-dichloro-N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)benzamide;

N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-3-(trifluoromethoxy)benzamide;

N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-3,5-difluorobenzamide;

WO 2004/087669

1071

PCT/JP2004/004624

4-bromo-N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-3-methylbenzamide;

N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-3-ethylbenzamide;

4-bromo-N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)benzamide;

 $N-(cis-4-\{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino\} cyclohexyl)-4-ethylbenzamide;\\$

 $N-(cis-4-\{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino\} cyclohexyl)-3,5-diethoxybenzamide;$

N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-3-ethoxybenzamide;

N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-3-isopropoxybenzamide;

5-bromo-N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)nicotinamide;

5-bromo-N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-2-furamide;

5-chloro-N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-2-furamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-3-fluoro-5-(trifluoromethyl)benzamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2,2-difluoro-1,3-benzodioxole-5-carboxamide;

 $N-(cis-4-\{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino\} cyclohexyl)-3-ethoxybenzamide;$

. 5-bromo-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2-furamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-3,5-diethoxybenzamide;

4-chloro-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-3-(trifluoromethyl)benzamide;

5-bromo-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)nicotinamide;

3,4-dichloro-N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)benzamide;

3-chloro-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-4-(trifluoromethoxy)benzamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-4-methoxy-3-(trifluoromethyl)benzamide;

N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-4-methoxy-3-(trifluoromethyl)benzamide;

2-(4-chlorophenyl)-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2-methylpropanamide

1-(4-chlorophenyl)-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)cyclopropanecarboxamide;

1-(4-chlorophenyl)-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)cyclobutanecarboxamide;

1-(2,4-dichlorophenyl)-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)cyclopropanecarboxamide;

2-(4-chlorophenyl)-N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-2-methylpropanamide

1-(4-chlorophenyl)-N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)cyclopropanecarboxamide;

1-(4-chlorophenyl)-N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)cyclobutanecarboxamide;

1-(2,4-dichlorophenyl)-N-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)cyclopropanecarboxamide;

2-(4-chlorophenyl)-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)acetamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-1-(4-methylphenyl)cyclopropanecarboxamide;

2-(4-chlorophenyl)-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-vl]amino}cyclohexyl)propanamide

2-(4-chlorophenyl)-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2-hydroxyacetamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-1-(4-methoxyphenyl)cyclopropanecarboxamide;

 N^2 -(3-chlorophenyl)-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)- N^2 -methylglycinamide;

N²-(3,4-dichlorophenyl)-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N²-methylglycinamide;

 $N-(cis-4-\{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino\} cyclohexyl)-N^2-methyl-N^2-(3-methylphenyl)glycinamide;$

 $N-(cis-4-\{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino\} cyclohexyl)-N^2-(3-fluorophenyl)-N^2-methylglycinamide;$

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N²-(4-fluorophenyl)-N²-methylglycinamide;

N²-(4-chlorophenyl)-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N²-methylglycinamide;

N²-(3,4-difluorophenyl)-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N²-methylglycinamide;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N²-(3-methoxyphenyl)-N²-methylglycinamide;

- 2-(3,4-dichlorophenoxy)-N-(cis-4-{[4-methyl-6-(methylamino)pyrimidin-2-yl]amino}cyclohexyl)acetamide;
- trans-2-(4-chlorophenyl)-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)cyclopropanecarboxamide;
- trans-2-(3-chlorophenyl)-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)cyclopropanecarboxamide;
- trans-2-(3,4-difluorophenyl)-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)cyclopropanecarboxamide;
- trans-2-(3,4-dichlorophenyl)-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)cyclopropanecarboxamide;
- trans-2-[3,5-bis(trifluoromethyl)phenyl]-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)cyclopropanecarboxamide;
- 2-[(4-chlorophenyl)sulfonyl]-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)nicotinamide;
- N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-2-{[1-methyl-3-(trifluoromethyl)-1H-pyrazol-5-yl]oxy}acetamide;
- N-[cis-4-(4-dimethylamino-5-methyl-pyrimidin-2-ylamino)-cyclohexyl]-2-phenoxy-nicotinamide;
- N-[cis-4-(4-dimethylamino-6-methyl-pyrimidin-2-ylamino)-cyclohexyl]-2-phenoxy-nicotinamide;
- 3-chloro-N-[cis-4-(4-dimethylamino-5-methyl-pyrimidin-2-ylamino)-cyclohexyl]-4-fluoro-benzamide;
- 4-chloro-N-[cis-4-(4-dimethylamino-6-methyl-pyrimidin-2-ylamino)-cyclohexyl]-3-fluoro-benzamide;
- 3-chloro-N-[cis-4-(4-dimethylamino-6-methyl-pyrimidin-2-ylamino)-cyclohexyl]-5-fluoro-benzamide;
- N-[cis-4-(4-dimethylamino-6-methyl-pyrimidin-2-ylamino)-cyclohexyl]-3,4,5-trifluoro-benzamide;

3-chloro-4-fluoro-N-[cis-4-(5-methyl-4-methylamino-pyrimidin-2-ylamino)-cyclohexyl]-benzamide;

4-chloro-N-[cis-4-(4-dimethylamino-5-methyl-pyrimidin-2-ylamino)-cyclohexyl]-3-fluoro-benzamide;

3-chloro-N-[cis-4-(4-dimethylamino-5-methyl-pyrimidin-2-ylamino)-cyclohexyl]-5-fluoro-benzamide;

N-[cis-4-(4-dimethylamino-5-methyl-pyrimidin-2-ylamino)-cyclohexyl]-3,4,5-trifluoro-benzamide;

N-[cis-4-(4-dimethylamino-5-methyl-pyrimidin-2-ylamino)-cyclohexyl]-3,5-difluoro-benzamide; and

2-(3,4-difluoro-phenyl)-N-[cis-4-(4-dimethylamino-5-methyl-pyrimidin-2-ylamino)-cyclohexyl]-acetamide;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

- 88. The compound according to claim 75 wherein R_1 is selected from the group consisting of:
 - (i) C_{1-16} alkyl, and

 C_{1-16} alkyl substituted by substituent(s) independently selected from the group consisting of:

- •carbocyclic aryl,
- •carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen,
 - ••nitro,
 - ••C₁₋₅ alkylcarbonylamino,
 - °°C₃₋₆ cycloalkylcarbonylamino,
 - ∞C₁₋₅ alkyl,
 - ••C₁₋₅ alkyl substituted by halogen,
 - ••C₁₋₅ alkoxy, and

1076

- ••C₁₋₅ alkoxy substituted by halogen,
- (ii) C₃₋₁₂ cycloalkyl, andC₃₋₁₂ cycloalkyl substituted by carbocyclic aryl,
- (iii) carbocyclic aryl, andcarbocyclic aryl substituted by substituent(s) independently selected fromthe group consisting of:
 - •halogen,
 - °C₁₋₁₀ alkyl,
 - •C₁₋₁₀ alkyl substituted by halogen,
 - •C₁₋₉ alkoxy, and
 - •C₁₋₅ alkylthio,
- (iv) heterocyclyl,

L is Formula (XV);

Y is $-C(O)NR_5$ -;

R₂ is selected from the group consisting of:

-N(R_{2a})(R_{2b}), wherein R_{2a} is hydrogen or C₁₋₅ alkyl and R_{2b} is C₁₋₅ alkyl; wherein carbocyclic aryl is phenyl or naphthyl; heterocyclyl is 3,4-dihydro-1*H*-isoquinolinyl; and halogen is fluoro, chloro, bromo, or iodo;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

- 89. The compound according to claim 88 wherein R_1 is selected from the group consisting of:
 - (i) C_{1-16} alkyl, and

C₁₋₁₆ alkyl substituted by substituent(s) independently selected from the group consisting of:

- earbocyclic aryl,
- •carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:

1077

- ••halogen,
- oonitro,
- ∘∘C₁₋₅ alkyl,
- °°C₁₋₅ alkyl substituted by halogen,
- ••C₁₋₅ alkoxy, and
- ∘∘C₁₋₅ alkoxy substituted by halogen,
- (ii) C_{3-12} cycloalkyl, and C_{3-12} cycloalkyl substituted by carbocyclic aryl,
- (iii) carbocyclic aryl, andcarbocyclic aryl substituted by substituent(s) independently selected fromthe group consisting of:
 - ·halogen,
 - •C₁₋₁₀ alkyl,
 - •C₁₋₁₀ alkyl substituted by halogen, and
 - •C₁₋₉ alkoxy;

R₂ is selected from the group consisting of:

- -N(R_{2a})(R_{2b}), wherein R_{2a} is hydrogen or C₁₋₅ alkyl and R_{2b} is C₁₋₅ alkyl; wherein carbocyclic aryl is phenyl or naphthyl; heterocyclyl is 3,4-dihydro-1*H*-isoquinolinyl; and halogen is fluoro, chloro, bromo, or iodo; or a pharmaceutically acceptable salt, hydrate, or solvate thereof.
- or a famous source of the second seco
- 90. The compound according to any one of claims 75, 88, and 89 wherein p is 1 and T is C₁₋₅ alkyl; R₃ and R₄ are both hydrogen; and A and B are both single bonds; R₅ is hydrogen: or a pharmaceutically acceptable salt, hydrate, or solvate thereof.
- 91. The compound according to claim 1 selected from the group consisting of:

1078

cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}-N-(3-iodobenzyl)cyclohexanecarboxamide;

cis-N-(2,4-dichlorobenzyl)-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexanecarboxamide;

cis-N-(2,5-dichlorobenzyl)-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexanecarboxamide;

cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}-N-(4-methylbenzyl)cyclohexanecarboxamide;

cis-N-(3,5-dichlorobenzyl)-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexanecarboxamide;

cis-N-(3,5-dimethoxybenzyl)-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexanecarboxamide;

cis-N-(3-chlorobenzyl)-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexanecarboxamide;

cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}-N-[3-(trifluoromethyl)benzyl]cyclohexanecarboxamide;

cis-N-[3,5-bis(trifluoromethyl)benzyl]-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexanecarboxamide;

cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}-N-(3-methoxybenzyl)cyclohexanecarboxamide;

cis-N-(4-chlorobenzyl)-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexanecarboxamide;

cis-N-(3,4-dichlorobenzyl)-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexanecarboxamide;

cis-N-(2,5-difluorobenzyl)-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexanecarboxamide;

cis-N-(2,3-difluorobenzyl)-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexanecarboxamide;

cis-N-(4-bromo-2-fluorobenzyl)-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexanecarboxamide;

cis-N-(2,4-difluorobenzyl)-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexanecarboxamide;

cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}-N-(3-methylbenzyl)cyclohexanecarboxamide;

cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}-N-[2-(trifluoromethoxy)benzyl]cyclohexanecarboxamide;

cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}-N-[(1R)-1-phenylethyl]cyclohexanecarboxamide;

cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}-N-[(1S)-1-(4-methylphenyl)ethyl]cyclohexanecarboxamide;

cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}-N-[(1R)-1-(4-fluorophenyl)ethyl]cyclohexanecarboxamide;

cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}-N-[(1S)-1-(4-fluorophenyl)ethyl]cyclohexanecarboxamide;

cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}-N-[(1R)-1-(3-methoxyphenyl)ethyl]cyclohexanecarboxamide;

cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}-N-[(1S)-1-(3-methoxyphenyl)ethyl]cyclohexanecarboxamide;

cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}-N-[(1S)-1-(4-methoxyphenyl)ethyl]cyclohexanecarboxamide;

cis-N-[(1R)-1-(4-chlorophenyl)ethyl]-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexanecarboxamide;

cis-N-[1-(4-bromophenyl)ethyl]-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexanecarboxamide;

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1080

cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}-N-[(1S)-1-(4-nitrophenyl)ethyl]cyclohexanecarboxamide;

cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}-N-(3-fluorophenyl)cyclohexanecarboxamide;

cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}-N-(3-methoxyphenyl)cyclohexanecarboxamide;

cis-N-(3-chlorophenyl)-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexanecarboxamide;

cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}-N-[(1S,2R)-2-phenylcyclopropyl]cyclohexanecarboxamide;

cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}-N-[4-(trifluoromethyl)phenyl]cyclohexanecarboxamide;

cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}-N-[(1R)-1-(3-methoxyphenyl)ethyl]cyclohexanecarboxamide;

cis-N-[(1S)-1-(4-chlorophenyl)ethyl]-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexanecarboxamide;

cis-N-benzyl-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexanecarboxamide;

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cis-N-(3,4-difluorobenzyl)-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexanecarboxamide;

cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}-N-[(1S)-1-(4-methoxyphenyl)ethyl]cyclohexanecarboxamide;

cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}-N-[(1S)-1-(3-methoxyphenyl)ethyl]cyclohexanecarboxamide;

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cis-N-[(1R)-1-(4-chlorophenyl)ethyl]-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yllamino cyclohexanecarboxamide: cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}-N-[(1S)-1-(1naphthyl)ethyl]cyclohexanecarboxamide; cis-N-[(1R)-1-(4-bromophenyl)ethyl]-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexanecarboxamide; cis-N-[(1S)-1-(4-bromophenyl)ethyl]-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexanecarboxamide; cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}-N-{(1S)-1-[4-(trifluoromethoxy)phenyl]ethyl}cyclohexanecarboxamide; cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}-N-[(1R)-1-(2fluorophenyl)ethyl]cyclohexanecarboxamide; cis-N-{(1S)-1-[3,5-bis(trifluoromethyl)phenyl]ethyl}-4-{[4-(dimethylamino)-5methylpyrimidin-2-yllamino}cyclohexanecarboxamide; 4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}-N-{(1S)-1-[3-(trifluoromethyl)phenyl]ethyl}cyclohexanecarboxamide; 4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}-N-{(1S)-1-[2-(trifluoromethyl)phenyl]ethyl}cyclohexanecarboxamide; cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}-N-{(1R)-1-[4-(trifluoromethoxy)phenyl]ethyl}cyclohexanecarboxamide; cis-N-[(1S)-1-(4-chlorophenyl)ethyl]-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexanecarboxamide; cis-N-[(1R)-1-(4-chlorophenyl)ethyl]-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexanecarboxamide; cis-N-[1-(4-chlorophenyl)-1-methylethyl]-4-{[4-(dimethylamino)-5methylpyrimidin-2-yl]amino}cyclohexanecarboxamide; and .cis-N-{1-[3,5-bis(trifluoromethyl)phenyl]-1-methylethyl}-4-{[4-(dimethylamino)-

5-methylpyrimidin-2-yl]amino}cyclohexanecarboxamide;

1082

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

92. The compound according to claim 1 selected from the group consisting of: cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yllamino}-N-(3iodobenzyl)cyclohexanecarboxamide; cis-N-(2,4-dichlorobenzyl)-4-{[4-(dimethylamino)-6-methylpyrimidin-2yl]amino}cyclohexanecarboxamide; cis-N-(2,5-dichlorobenzyl)-4-{[4-(dimethylamino)-6-methylpyrimidin-2yl]amino}cyclohexanecarboxamide: cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}-N-(4methylbenzyl)cyclohexanecarboxamide; cis-N-(3,5-dichlorobenzyl)-4-{[4-(dimethylamino)-6-methylpyrimidin-2yl]amino}cyclohexanecarboxamide; cis-N-(3,5-dimethoxybenzyl)-4-{[4-(dimethylamino)-6-methylpyrimidin-2yl]amino}cyclohexanecarboxamide; cis-N-(3-chlorobenzyl)-4-{[4-(dimethylamino)-6-methylpyrimidin-2yllamino}cyclohexanecarboxamide; cis-N-[3,5-bis(trifluoromethyl)benzyl]-4-{[4-(dimethylamino)-6-methylpvrimidin-2-yl]amino}cyclohexanecarboxamide; cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}-N-(3methoxybenzyl)cyclohexanecarboxamide; cis-N-(4-chlorobenzyl)-4-{[4-(dimethylamino)-6-methylpyrimidin-2yl]amino}cyclohexanecarboxamide; cis-N-(3,4-dichlorobenzyl)-4-{[4-(dimethylamino)-6-methylpyrimidin-2yl]amino}cyclohexanecarboxamide;

cis-N-(2,5-difluorobenzyl)-4-{[4-(dimethylamino)-6-methylpyrimidin-2-

yl]amino}cyclohexanecarboxamide:

1083

cis-N-(2,3-difluorobenzyl)-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexanecarboxamide;

cis-N-(4-bromo-2-fluorobenzyl)-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexanecarboxamide;

cis-N-(2,4-difluorobenzyl)-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexanecarboxamide;

cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}-N-(3-methylbenzyl)cyclohexanecarboxamide;

cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}-N-[2-(trifluoromethoxy)benzyl]cyclohexanecarboxamide;

cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}-N-[(1S)-1-(4-methylphenyl)ethyl]cyclohexanecarboxamide;

cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}-N-[(1R)-1-(4-fluorophenyl)ethyl]cyclohexanecarboxamide;

cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}-N-[(1R)-1-(3-methoxyphenyl)ethyl]cyclohexanecarboxamide;

cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}-N-[(1S)-1-(3-methoxyphenyl)ethyl]cyclohexanecarboxamide;

cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}-N-[(1S)-1-(4-methoxyphenyl)ethyl]cyclohexanecarboxamide;

cis-N-[(1R)-1-(4-chlorophenyl)ethyl]-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexanecarboxamide;

cis-N-[1-(4-bromophenyl)ethyl]-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexanecarboxamide;

 $\label{lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis-4-lem:cis$

cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}-N-(3-methoxyphenyl)cyclohexanecarboxamide;

1084

cis-N-(3-chlorophenyl)-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexanecarboxamide;

cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}-N-[(1S,2R)-2-phenylcyclopropyl]cyclohexanecarboxamide;

cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}-N-[4-(trifluoromethyl)phenyl]cyclohexanecarboxamide;

cis-N-[(1S)-1-(4-chlorophenyl)ethyl]-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexanecarboxamide;

cis-N-(3,4-difluorobenzyl)-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexanecarboxamide;

cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}-N-[(1S)-1-(4-methoxyphenyl)ethyl]cyclohexanecarboxamide;

cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}-N-[(1S)-1-(3-methoxyphenyl)ethyl]cyclohexanecarboxamide;

cis-N-[(1R)-1-(4-chlorophenyl)ethyl]-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexanecarboxamide;

cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}-N-[(1S)-1-(1-naphthyl)ethyl]cyclohexanecarboxamide;

cis-N-[(1S)-1-(4-bromophenyl)ethyl]-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexanecarboxamide;

cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}-N-{(1S)-1-[4-(trifluoromethoxy)phenyl]ethyl}cyclohexanecarboxamide;

cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}-N-[(1R)-1-(2-fluorophenyl)ethyl]cyclohexanecarboxamide;

cis-N-{(1S)-1-[3,5-bis(trifluoromethyl)phenyl]ethyl}-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexanecarboxamide;

.4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}-N-{(1S)-1-[3-(trifluoromethyl)phenyl]ethyl}cyclohexanecarboxamide;

1085

 $\label{lem:continuous} 4-\{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino\}-N-\{(1S)-1-[2-(trifluoromethyl)phenyl]ethyl\}cyclohexanecarboxamide; and$

cis-N-[(1R)-1-(4-chlorophenyl)ethyl]-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexanecarboxamide;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

- 93. The compound according to claim 75 wherein R₁ is selected from the group consisting of:
 - (i) C_{1-16} alkyl, and

C₁₋₁₆ alkyl substituted by substituent(s) independently selected from the group consisting of:

- ·carbocyclic aryl,
- •carbocyclic aryl substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen,
 - ••C₁₋₅ alkyl, and
 - ••C₁₋₅ alkyl substituted by halogen,
- (ii) C₃₋₁₂ cycloalkyl, and

 C_{3-12} cycloalkyl substituted by substituent(s) independently selected from the group consisting of:

- •carbocyclic aryl, and
- •carbocyclic aryl substituted by halogen,
- (iii) carbocyclic aryl, andcarbocyclic aryl substituted by substituent(s) independently selected fromthe group consisting of:
 - •halogen,
 - •C₁₋₁₀ alkyl,
 - •C₁₋₁₀ alkyl substituted by halogen,
 - •C₁₋₉ alkoxy,

•C₁₋₉ alkoxy substituted by substituent(s) independently selected from the group consisting of:

oohalogen, and

oocarbocyclic aryl,

L is Formula (VII);

Y is $-C(O)NR_5$ -;

 R_2 is $-N(R_{2a})(R_{2b})$ wherein R_{2a} is hydrogen or C_{1-5} alkyl and R_{2b} is C_{1-5} alkyl;

wherein carbocyclic aryl is phenyl; and

halogen is fluoro, chloro, bromo, or iodo;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

- 94. The compound according to claim 75 or 93 wherein p is 1 or 2 and each T is independently C₁₋₅ alkyl; R₃ is hydrogen; R₄ is hydrogen or C₁₋₅ alkyl; A and B are both single bonds; R₅ is hydrogen; or a pharmaceutically acceptable salt, hydrate, or solvate thereof.
- 95. The compound according to claim 1 selected from the group consisting of:

N-(3,4-dimethoxyphenyl)-N'-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)urea;

N-(3-chlorophenyl)-N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N-methylurea;

N-(3,4-dichlorophenyl)-N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N-methylurea;

 $N'-(cis-4-\{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino\} cyclohexyl)-N-methyl-N-(3-methylphenyl)urea;$

N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N-methyl-N-(4-methylphenyl)urea;

N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N-(3-fluorophenyl)-N-methylurea;

N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N-(4-fluorophenyl)-N-methylurea;

N-(4-chlorophenyl)-N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N-methylurea;

N-(3,4-difluorophenyl)-N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N-methylurea;

N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N-(3-methoxyphenyl)-N-methylurea;

N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N-(4-methoxyphenyl)-N-methylurea;

N-{1-[3,5-bis(trifluoromethyl)phenyl]-1-methylethyl}-N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)urea;

N-[1-(4-chlorophenyl)-1-methylethyl]-N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)urea;

N-[1-(4-chlorophenyl)-1-methylethyl]-N'-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)urea;

N-[1-(4-chlorophenyl)-1-methylethyl]-N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N-methylurea;

N-[1-(4-chlorophenyl)-1-methylethyl]-N'-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)-N-methylurea;

N-[1-(4-chlorophenyl)cyclopropyl]-N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N-methylurea;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N'-(2-methoxyphenyl)urea;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N'-(3-methoxyphenyl)urea;

N-(3,4-dimethoxyphenyl)-N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)urea;

 $N-(cis-4-\{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino\} \ cyclohexyl)-N'-(4-fluorophenyl)urea;$

N-(3,4-difluorophenyl)-N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)urea;

 $N-(cis-4-\{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino\} cyclohexyl)-N'-[2-(trifluoromethoxy)phenyl]urea;$

N-(4-chlorophenyl)-N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)urea;

N-[3,5-bis(trifluoromethyl)phenyl]-N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)urea;

N-(4-bromophenyl)-N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)urea;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N'-(2-methylphenyl)urea;

N-benzyl-N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)urea;

N-[2-chloro-6-(trifluoromethyl)phenyl]-N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)urea;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N'-(2,4,6-trichlorophenyl)urea;

 $N-(2,4-dichlorophenyl)-N'-(cis-4-\{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino\}cyclohexyl)-N-methylurea;$

N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N-methyl-N-[2-(trifluoromethoxy)phenyl]urea;

N-(4-chlorophenyl)-N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N-ethylurea;

N-[3,5-bis(trifluoromethyl)phenyl]-N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N-ethylurea;

N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N-(2-fluorophenyl)-N-methylurea;

N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N-ethyl-N-[2-(trifluoromethoxy)phenyl]urea;

N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N-ethyl-N-phenylurea;

N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N-ethyl-N-(3-methylphenyl)urea; and

1-(2,3-dichloro-phenyl)-3-[cis-4-(4-dimethylamino-5-methyl-pyrimidin-2-ylamino)-cyclohexylmethyl]-urea;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

96. The compound according to claim 1 selected from the group consisting of:

N-(3,4-dimethoxyphenyl)-N'-(cis-4-{[4-(dimethylamino)-5,6-dimethylpyrimidin-2-yl]amino}cyclohexyl)urea;

N-(3-chlorophenyl)-N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N-methylurea;

N-(3,4-dichlorophenyl)-N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N-methylurea;

N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N-methyl-N-(3-methylphenyl)urea;

 $\label{eq:N-def} N'-(cis-4-\{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino\} cyclohexyl)-N-methyl-N-(4-methylphenyl)urea;$

N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N-(3-fluorophenyl)-N-methylurea;

N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N-(4-fluorophenyl)-N-methylurea;

N-(4-chlorophenyl)-N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N-methylurea;

N-(3,4-difluorophenyl)-N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N-methylurea;

N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N-(3-methoxyphenyl)-N-methylurea;

N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N-(4-methoxyphenyl)-N-methylurea;

N-[1-(4-chlorophenyl)-1-methylethyl]-N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)urea;

N-[1-(4-chlorophenyl)-1-methylethyl]-N'-(cis-4-{[4-(dimethylamino)-6-methylpyrimidin-2-yl]amino}cyclohexyl)urea;

N-[1-(4-chlorophenyl)-1-methylethyl]-N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N-methylurea;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N'-(4-fluorophenyl)urea;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N'-[2-(trifluoromethoxy)phenyl]urea;

N-(4-bromophenyl)-N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)urea;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N'-(2-methylphenyl)urea;

N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N'-(2,4,6-trichlorophenyl)urea;

N-(2,4-dichlorophenyl)-N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N-methylurea;

N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N-methyl-N-[2-(trifluoromethoxy)phenyl]urea;

1091

N-(4-chlorophenyl)-N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N-ethylurea;

N-[3,5-bis(trifluoromethyl)phenyl]-N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N-ethylurea;

N'-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)-N-ethyl-N-phenylurea;

 $N'-(cis-4-\{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino\} cyclohexyl)-N-ethyl-N-(3-methylphenyl)urea; and$

1-(2,3-dichloro-phenyl)-3-[cis-4-(4-dimethylamino-5-methyl-pyrimidin-2-ylamino)-cyclohexylmethyl]-urea;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

97. The compound according to claim 75 wherein R₁ is selected from the group consisting of:

heterocyclyl, and

heterocyclyl substituted by substituent(s) independently selected from the group consisting of:

- •carbocyclic aryloxy,
- •carbocyclic aryloxy substituted by substituent(s) independently selected from the group consisting of:
 - ••halogen, and
 - ••C₁₋₅ alkoxy,

L is Formula (X) or (XI);

Y is -C(O)-;

 R_2 is $-N(R_{2a})(R_{2b})$ wherein R_{2a} is C_{1-5} alkyl and R_{2b} is C_{1-5} alkyl;

wherein carbocyclic aryl is phenyl;

heterocyclyl is pyridyl; and

halogen is fluoro, chloro, bromo, or iodo;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

1092

98. The compound according to claim 75 or 97 wherein p is 1 and T is C₁₋₅ alkyl; R₃ and R₄ are both hydrogen; A is a single bond and B is -CH₂-; or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

- 99. The compound according to claim 75 wherein R₁ is selected from the group consisting of:
 - (i) carbocyclic aryl, andcarbocyclic aryl substituted by substituent(s) independently selected fromthe group consisting of:
 - ·halogen,
 - •C₁₋₁₀ alkyl, and
 - •C₁₋₁₀ alkyl substituted by halogen,
 - (ii) heterocyclyl,

L is Formula (VII); and

Y is $-S(O)_2$ -;

 R_2 is $-N(R_{2a})(R_{2b})$ wherein R_{2a} is C_{1-5} alkyl and R_{2b} is C_{1-5} alkyl;

wherein carbocyclic aryl is phenyl or naphthyl;

heterocyclyl is furyl; and

halogen is fluoro, chloro, bromo, or iodo;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

- The compound according to any one of claims 75 or 99 wherein p is 1 and T is C₁₋₅ alkyl;
 R₃ and R₄ are both hydrogen, and A and B are both single bonds;
 or a pharmaceutically acceptable salt, hydrate, or solvate thereof.
- 101. The compound according to claim 1 is:

4-chloro-N-(cis-4-{[4-(dimethylamino)-5-methylpyrimidin-2-yl]amino}cyclohexyl)benzenesulfonamide;

WO 2004/087669

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

102. The compound according to claim 1 wherein R₁ is selected from hydrogen, -CO₂^tBu, or -CO₂Bn (Bn is a benzyl group);

R₂ is selected from the group consisting of:

hydrogen, halogen, hydroxy, carboxy, carbamoyl, amino, C_{1-5} alkyl, C_{1-5} alkyl substituted by halogen, C_{1-5} alkyl substituted by hydroxy, C_{1-5} alkyl substituted by carbamoyl, C_{1-5} alkoxy, C_{1-5} alkoxy substituted by halogen, $-N(R_{2a})(R_{2b})$; wherein R_{2a} is hydrogen or C_{1-5} alkyl and R_{2b} is C_{1-5} alkyl, C_{3-6} cycloalkyl, or C_{1-5} alkyl substituted by substituent(s) independently selected from the group

·halogen,

consisting of:

- •hydroxy,
- ·carboxy,
- ·carbamoyl,
- •C₁₋₅ alkoxy,
- amino, and
- •C₃₋₆ cycloalkyl;

or R₂ is methylamino or dimethylamino when Q is Formula (II);

Each T is independently selected from the group consisting of halogen, hydroxy, carboxy, carbamoyl, amino, cyano, nitro, C_{1-5} alkyl, C_{1-5} alkyl substituted by halogen, C_{1-5} alkyl substituted by hydroxy, C_{1-5} alkyl substituted by carboxy, C_{1-5} alkyl substituted by carbamoyl, C_{2-5} alkenyl, C_{2-5} alkynyl, C_{3-6} cycloalkyl, C_{1-5} alkoxy, C_{1-5} alkoxy substituted by halogen, carbocyclic aryl, heterocyclyl, and $-N(R_{2a})(R_{2b})$;

p is 0, 1, 2, 3, 4 or 5;

L is selected from the group consisting of Formula (VII), (X), (XI), (XV), (XVIII), or (XIX): wherein R₃ and R₄ are independently hydrogen or C₁₋₅ alkyl; and A and B are independently a single bond or -CH₂-; and Y is a single bond;

or a pharmaceutically acceptable salt, hydrate, or solvate thereof.

- 103. A pharmaceutical composition comprising a therapeutically effective amount of a compound according to any one of claims 1 to 102 in combination with a pharmaceutically acceptable carrier.
- 104. A method for the prophylaxis or treatment of improving memory function, sleeping and arousal, anxiety, depression, mood disorders, seizure, obesity, diabetes, appetite and eating disorders, cardiovascular disease, hypertension, dyslipidemia, myocardial infarction, binge eating disorders including bulimia, anorexia, mental disorders including manic depression, schizophrenia, delirium, dementia, stress, cognitive disorders, attention deficit disorder, substance abuse disorders and dyskinesias including Parkinson's disease, epilepsy, and addiction comprising administering to an individual suffering from said condition a therapeutically effective amount of a compound according to any one of claims 1 to 102 or a pharmaceutical composition according to claim 103.
- 105. A method for the prophylaxis or treatment of an eating disorder, obesity or an obesity related disorder comprising administering to an individual suffering from said condition a therapeutically effective amount of a compound according to any one of claims 1 to 102 or a pharmaceutical composition according to claim 103.
- 106. A method for the prophylaxis or treatment of anxiety, depression, schizophrenia, addiction, or epilepsy comprising administering to an individual suffering from said condition a therapeutically effective amount of a compound according to any one of claims 1 to 102 or

1095

- a pharmaceutical composition according to claim 103.
- 107. A compound according to any one of claims 1 to 102 or a pharmaceutical composition according to claim 103 for use in a method of treatment of the human or animal body by therapy.
- 108. A compound according to any one of claims 1 to 102 or a pharmaceutical composition according to claim 103 for use in a method of prophylaxis or treatment of an eating disorder, obesity or an obesity related disorder of the human or animal body by therapy.
- 109. A compound according to any one of claims 1 to 102 or a pharmaceutical composition according to claim 103 for use in a method of prophylaxis or treatment of anxiety, depression, schizophrenia, addiction, or epilepsy of the human or animal body by therapy.
- 110. A compound according to any one of claims 1 to 102 for the manufacture of a medicament for use in the prophylaxis or treatment of an eating disorder, obesity or obesity related disorders.
- 111. A compound according to any one of claims 1 to 102 for the manufacture of a medicament for use in the prophylaxis or treatment of anxiety, depression, schizophrenia, addiction, or epilepsy.
- 112. A method of producing a pharmaceutical composition comprising admixing a compound according to any one of claims 1 to 102 and a pharmaceutically acceptable carrier.

INTERNATIONALSEARCHREPORT

International application No.

PCT/JP2004/004624

A.	CLASSIFICATIONOFSUBJECTMATTER	
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Int.Cl7 C07D215/42,215/38,239/28,239/72,A61K31/47,31/505,A61P3/04,25/00,9/00,43/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Int.Cl7 C07D215/42,215/38,239/28,239/72,A61K31/47,31/505

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Japanese Utility Model Gazette 1922-1996, Japanese Publication of Unexamined Utility Model Applications 1971-2004, Japanese Registered Utility Model Gazette 1994-2004, Japanese Gazette Containing the Utility Model 1996-2004

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

REGISTRY (STN), CAPLUS (STN)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
x	JP 2002-356471 A (TANABE SEIYAKU CO.,LTD.) 2002.12.13 See Claims, Paragraph(0004), Example 1a-7-11,	1,2,52-74, 103,107-112
Y	20,64-67,77,86,87 &WO 2002/030891 A1 &EP 1325910 A1 &US 2004/063935 A1 &AU 2001094197 A	3-51,75-102
x	WO 2001/096295 A2 (NOVARTIS AG) 2001.12.20 See Claims, Example 20 &JP 2004-503531 A &EP 1296974 A2	1,2,52-74, 103,107-112
Y	&US 2002/193390 A1	3-51,75-102

	Further documents are listed in the continuation of Box C.	See patent family annex.		
* "A"	Special categories of cited documents: document defining the general state of the art which is not considered to be of particular relevance	"T"	later document published after the international filing priority date and not in conflict with the application but understand the principle or theory underlying the inve	date or
"E"	earlier application or patent but published on or after the international filing date	"X" document of particular relevance; the claimed invention can be considered novel or cannot be considered to involve inventive step when the document is taken alone		n cannot
"L"	document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)			
"0"	document referring to an oral disclosure, use, exhibition or other means		be considered to involve an inventive step when the doc combined with one or more other such document combination being obvious to a person skilled in the ar	
"P"	document published prior to the international filing date but later than the priority date claimed			
Date of the actual completion of the international search		Date of mailing of the international search report		
16.07.2004			17. 8. 2004	
Name and mailing address of the ISA/JP		Auth	corized officer	638
Japan Patent Office		K	AYOKO EMOTO	
3-4-3, Kasumigaseki, Chiyoda-ku, Tokyo 100-8915, Japan		Tele	phone No. +81-3-3581-1101 Ext. 3492	

INTERNATIONALSEARCHREPORT

International application No. PCT/JP2004/004624

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C (Continua	tion). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant	ant passages	Relevant to claim No.
X	JP 07-504408 A (JANSSEN PHARMACEUTICA 1995.05.18	M.V.)	1,2,52-74, 103,107-112
X ·	See Claims, Compound No.122,123 &WO 93/17017 A1 &EP 639192 A1 &US 554	1180 A	3-51,75-102
X	WUSTROW, David et al., Aminopyrimidines High Affinity for Both Serotonin and D Receptors,		1,2,52-74, 103,107-112
Y	J. Med. Chem., (1998), Vol.41, No.5, p	.760-771	3-51,75-102
PX	WO 2004/004726 A1 (ASTRAZENECA AB) 200 See the Entire Document (Family:None)	4.01.15	1-103,107-
PX	WO 2003/070244 A1 (ABBOTT LABORATORIES 2003.08.28 See the Entire Document (Family:None))	1-103,107- 112
PX	WO 2003/053933 A1 (F.HOFFMANN-LA ROCHE 2003.08.28 See the Entire Document &US 2003/186984 A1	AG)	1-103,107- 112
PX	WO 2003/028641 A2 (TAISHO PHARMACEUTIC CO.,LTD.) 2003.04.10 See the Entire Document &EP 1432693 A2	AL	1-103,107- 112

INTERNATIONALSEARCHREPORT

International application No. PCT/JP 2004 / 004624

Box No. I	Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)	
This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:		
	Claims Nos.: 104-106 because they relate to subject matter not required to be searched by this Authority, namely:	
	Claims $104-106$ pertain to a method for treatment of the human body by therapy.	
ا ك	Claims Nos.: because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:	
	Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).	
Box No. II	I Observations where unity of invention is lacking (Continuation of item 3 of first sheet)	
This Intern	national Searching Authority found multiple inventions in this international application, as follows:	
Howe sign 2002 repo Th	rmula (I), Q-L-Y-R1, in claim 1 involves a great number of compounds. ver, the common structure among those compounds does not appear to be a ificant structural element, since it is disclosed in documents such as JP -356471 A, WO 2001/096295 A2 and JP 07-504408 A (see Box C of this rt). erefore, the inventions related to those compounds are not deemed to form ngle general inventive concept.	
	As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.	
	As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.	
	As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:	
	No required additional search fees were timely paid by the applicant. Consequently, this international search report is estricted to the invention first mentioned in the claims; it is covered by claims Nos.:	
Remark o	The additional search fees were accompanied by the applicant's protest. No protest accompanied the payment of additional search fees.	